Gyration Air Mouse Elite p.20

Clean YOUR Computer
Inside & Out

DIY Project:
Update GPS Device Maps p.34

Windows 7
Scan Photos & Fax Documents p.32

Solve Problems
With Windows Media Center p.78
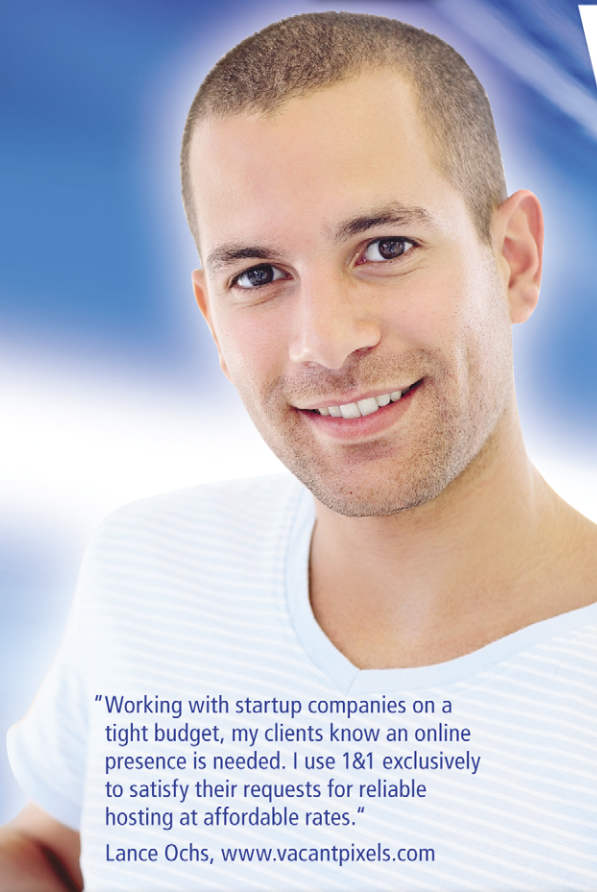
Buy A New HDTV
What You Need To Know p.36

Mac Corner
iChat Puts You
Face-To-Face p.41

04>

7 25274 77294 0

QUALI
WEB HOSTING

"Working with startup companies on a tight budget, my clients know an online presence is needed. I use 1&1 exclusively to satisfy their requests for reliable hosting at affordable rates."

Lance Ochs, www.vacantpixels.com

VacantPixels – Design with your Style in Mind.

File   Edit   View   Favorites   Extras   ?

Back   Search   Favorites

Address   www.vacantpixels.com   Links

VP VacantPixels
Designs With Your Style in Mind

Home page   About us   Portfolio   Solutions   Contacts

VacantPixels: Designs With Your Style in Mind.

Latest News

The Scottish Rite Masons was seeking restoration funding for Oklahoma's First Legislative Hall. VacantPixels was tasked to create a DVD-Rom from them with the look and feel of what the Hall will look like once completed as a conference center in Guthrie Oklahoma.

Brothers Bottling Company, LLC has tasked me to create some labels for their bottled water, and a test website. VacantPixels was entrusted to create a product line that fit two categories of commercial water and a high end line.

+ read more

Internet

start   Vacant Pixles   11:43

As the world's largest web host, with over 20 years of experience and state-of-the-art data centers worldwide, 1&1 is dedicated to security, innovation and value when it comes to your website.

99.9% Uptime

Reliability is essential for your business website. Our new data center features 30 GBit connectivity with high redundancy.

MONEY BACK GUARANTEE

90-Day Money Back Guarantee!

We want our customers to be 100% satisfied. If you decide that you are not completely happy, within 90 days from when your initial order was placed, you'll receive your money back – no questions asked.

&EPA GREEN POWER PARTNER

CLEAN ENERGY

MEMBER OF
united internet

Call **1-877-GO-1AND1**

Smart Computing
In Plain English

smartcomputing.com

Volume 21 . April 2010 . Issue 4

Clean Your PC
Inside & Out

News & Notes

Reviews

Gyration Air
Mouse Elite

Windows Phone

Personal Finance

Editor's Note

Most of the time, the tech support that *Smart Computing* provides (both through the magazine and through its SmartPeople Computer Support service) involves a pressing problem. A program error may be preventing an important application from running, for example. Or, a damaged PC component may have rendered your computer temporarily useless.

Whatever the problem you (and we) are addressing, it's typically an immediate one. The issue isn't just that your computer isn't working. It's that your computer isn't working and you need to finish that project, print that map, or send that email as soon as possible.

In some cases, the problem is one that could have been prevented, which is why we regularly extol the virtues of consistently cleaning your PC, getting rid of unwanted (or suspicious) programs, and giving your security software a quick inspection.

This month, we take a break from solving the immediate problems to help you prevent issues before they start. We show you how to clean up your operating system, get the dust and cat hair out of your PC, and clean your workspace so that it's clutter (and germ)-free. That ought to give your computer fewer reasons to run into those pressing problems.

Joshua B. Gulick

Joshua Gulick

Build An Online Presence

Put Your Small Business On The Web

I f your small business doesn't have a Web site, you're losing customers to competitors that do. Today, many customers research contractors, consultants, and retailers before picking up the phone or setting foot in a store. A well-designed Web site reflects your professionalism and reliability, and Web host 1&1 (www.1and1.com) has everything you'll need to put that site online – in a matter of minutes.

MyBusiness Site

The MyBusiness Site library features specialized Web site templates for more than 100 business types. To browse the templates, visit mybusiness.1and1.com and then select your business from the list. Here, you can check out a live example template, complete with text (that you can use and edit once you register for the service). Just as importantly, you can view the Web sites of other 1&1 customers.

Basic. MyBusiness Basic ($9.99 per month) gives you a great start. It includes a free domain name and free email addresses, as well as unlimited pages and Web space. The service also supports unlimited traffic. For example, you won't be charged additional fees when a news story about your business causes traffic to your Web site to spike.

Access to the Web site templates is included, of course, as is access to extra features, such as Flash and photo galleries that you can add to your site. You can even add YouTube videos. If you have questions about the Web site while you're setting it up (or once it's complete), you can contact customer support at no extra charge. The service

offers free customer support, 24 hours a day, 7 days a week.

Standard & Advanced. MyBusiness Standard ($19.99 per month) has all of Basic's features and adds some important tools, including the Image Library, a product catalog feature, an email marketing tool, and a calendar that lets you keep customers apprised of important events and promotions. MyBusiness Site Advanced ($29.99 per month) adds SEO Ready Service, which works to give your Web site increased visibility in popular search engines.

You can try MyBusiness Site Basic for 30 days. Right now, 1&1 is offering the first six months at 50% off for MyBusiness Site Standard and Advanced.

ListLocal

A great way to pick up business is to have your company appear in the search results of online map services. To help customers learn about your business, 1&1 offers ListLocal.

Using ListLocal is a snap. Once you enter some basic information about your business (including your logo and a link to your new Web site), ListLocal submits the data to popular online local search directories, including Google Maps, Yahoo! Local, Yellowpages.com, Yelp, and others. You can easily update the information at any time. The first six months of ListLocal are free, with a 12-month contract.

Final Touches

If you find that you need features your Web site doesn't provide, check out 1&1's other tools. Its eShops let Web

site owners create impressive online storefronts. As with MyBusiness Site, eShop has the tools you need to get started quickly. ▌▌

Prevent
Data Disaster

Back Up While Your PC Is Healthy

BounceBack Essential displays its progress while backing up your system. Once the first backup completes, scheduled backups are quick and painless.

If your PC's hard drive dies after you back it up to an external hard drive with BounceBack Essential, you can restore the entire OS (and applications) to a new hard drive.

800-327-5773   **www.cmsproducts.com**

As easy as it is to back up your PC, putting it off is very tempting. Right now, your system is as healthy as ever, with nary an error message in sight. The chances that it will suddenly develop a problem anytime soon seem pretty slim.

If PCs gave warning signs days before they crashed, you could probably get away with this approach to protecting your data. That's often not the case, of course. A software glitch or a hard drive crash can ruin all of your files before you see any hint of a problem. Notebooks are particularly exposed to another threat that can catch you off guard: theft.

If you can't afford to lose your data, you can't afford the risk of putting off your first backup. We'll show you how to back up your PC, including your operating system and applications, with CMS Products BounceBack Essential software ($39 on CD; $29 download; www.cmsproducts.com) and an external hard drive.

Choose A Backup Drive

BounceBack Essential resides on your computer and backs up your system to a hard drive, whether it's an extra internal drive or an external drive that connects to your computer's USB port. CMS offers packages that include a hard drive and the BounceBack software, but you don't need a CMS-branded drive to use BounceBack. A typical external USB hard drive should do the trick.

Create A Backup

As soon as it installs, BounceBack Essential lets you configure and launch the initial backup. The first configuration menu is the Backup Device List, which lets you select the drive on which your backup will be stored.

At this point, Bounce-Back Essential has all the information it needs. It starts the backup process and keeps you updated on its progress. The initial backup is the longest.

After the initial backup, the BounceBack Essential's regular backups are short, typically taking only a few minutes. The software backs up your system every hour by default. You can configure it to back up more frequently by clicking the BounceBack icon in the notification area and selecting Change CDP Settings.

Restore Your System

You can restore files and folders anytime, thanks to QuickRestore. To get started, click the BounceBack icon in the notification area and then click Quick-Restore. If your operating system is wrecked, however, you'll need the more powerful Instant Recovery tool.

To start BounceBack Essential's Instant Recovery, plug the external drive into your ailing PC and turn it on. When a black screen appears, use the arrow keys to select Start Instant PC Recovery Drive and then press ENTER. Windows will boot up and display an Instant PC Recovery window.

BounceBack Essential is now using your external hard drive's copy of Windows. If you want to work right away (for example, if you haven't swapped out your dead hard drive with a new one yet), click the Continue button. You can work in Windows on the external drive for as long as you'd like.

On the other hand, if you're ready to put the backed-up copy on your computer, click the Launch Recovery Process button. When the subsequent window appears, select the drive to which you would like to restore the operating system and then click the Next button.

That's all it takes to recover all of your critical applications, data, and your operating system. ▮▮

Compiled by Christian Perry
Illustrated by Lori Garris

DESKTOPS & LAPTOPS

Shuttle Overcomes Challenges Created By Tiny PCs

Mobile computer users seem to be having all the fun. But while netbooks and other ultra-portables are hogging the spotlight, desktop users should remember that SFF (small form-factor) PCs are keeping pace with mobile devices in terms of saving space and power. Shuttle, one of the trendsetters in the SFF market, is helping to continue that evolution.

The new Shuttle XPC J Series (us.shuttle.com) runs the gamut from entry level to high performance, all within the traditionally tiny footprint. One of the primary challenges with SFF computers is cooling, but the J Series includes an I.C.E. (Integrated Cooling Engine) that uses convection cooling to pull heat away from the processor and other internal components. That heat travels up the system's heat pipe to radiator fins on the back of the cooling chassis, where a fan located behind the fins pushes the heat out of the chassis.

The J Series builds on Shuttle's knack for allowing consumers to add standard PC components to their tiny computers with new support for Mini-ITX motherboards. This accommodation means that you'll have plenty of options for upgrading, despite the amazingly small size of the PC case. And if you do upgrade, the J series features a tool-less design, so adding drives or performing maintenance will be a snap.

Shuttle's new J Series of small form-factor PCs includes an integrated cooling engine that uses a combination of convection cooling, heat pipes, radiator fins, and a fan to "shuttle" heat away from internal components.

On the inside of J Series PCs, Shuttle has incorporated a roomy interior that uses a cable management system with preinstalled cables that are already routed and tied down. This new system should make it easier than ever to add standard graphics cards and other devices that can be difficult to squeeze into even midsized cases.

On the entry-level side is the Shuttle SG41J1, which uses the company's J1 chassis and is designed for everyday home and office use. This model uses Intel's G41 chipset, which is compatible with Intel Core Quad processors and includes onboard Intel X4500 graphics. The mainstream (or mid-level) SH55J2 uses Shuttle's J2 chassis and is based on the Intel H55 chipset, which is compatible with Intel Core i3 and Core i5 processors (which include on-chip graphics). Finally, the high-performance SX58J3 uses the J3 chassis and the Intel X58 chipset that supports Intel i7 processors and ATI CrossFireX and Nvidia SLI graphics configurations. ▮

Storage For Clumsy Speed Demons

External storage prices have dipped nearly as low as internal storage prices over recent years, allowing consumers to find the perfect match of form and function for their external hard drive needs. If your particular needs fall into "fast" and "rugged" categories, check out LaCie's latest drive.

The LaCie Rugged eSATA ($159.99; www .lacie.com) has a stylish orange and gray aluminum shell that includes shock-resistant metal and rubber, along with internal antishock bumpers to make the drive resistant to bumps and falls (however, LaCie doesn't recommend dropping the drive while it's in operating mode). But this 500GB drive offers far more than just the ability to survive rough handling.

The Rugged eSATA boasts transfer speeds of up to 90MBps (megabytes per second) when plugged into a USB-eSATA combination port. This interface is also known as a Power eSATA interface and is included with certain late-model notebooks from Acer, Asus, Dell, Fujitsu, HP, Lenovo, Toshiba, and other manufacturers. If your computer doesn't have this interface, the Rugged eSATA also works with traditional USB 2.0 ports, though transfer speeds are far slower at up to 36MBps. ▌

If you need storage that's both rugged and fast, check out LaCie's Rugged eSATA, a 500GB external hard drive that's surrounded with shock-resistant materials and employs the speedy Power eSATA interface.

Mirasol Reflects On E-ink Displays

E-ink reader displays generally have low power requirements and drab color schemes that make for great readability in sunlight. Sounds fine, but what happens when you want to watch some video or read magazine or newspaper articles in color? You're out of luck, unless you hold out for ereaders that use Mirasol displays.

Qualcomm MEMS Technologies developed the Mirasol display, which shuns a backlight in favor of reflective technology that reflects light in such a way that wavelengths work together to create color. The display takes a page from nature, where you'll see a shimmering, colorful effect on a butterfly's wings or a peacock's feathers, and the Mirasol employs mirrors to bounce light at the desired color to the eyes of the device's viewer.

Along with sunlight readability, the Mirasol also allows refresh rates that are far higher than those seen in other e-ink displays. This means that you won't encounter big delays when you touch the screen to access new pages or other content. Better yet, these displays support video, so you'll have some multimedia to go along with your text. And in situations when the display image remains unchanged, the Mirasol display requires almost no power.

Mirasol displays are expected to begin appearing by the end of the year in devices such as ebook readers, smartphones, and tablets. ▌

An e-ink reader with color and video? The Mirasol display makes that possible with reflective technology that enables high refresh rates and uses minimal power.

Keyboard Combo Makes Batteries An Afterthought

Wireless mouse and keyboard combinations sure are convenient—that is, until you have to scramble for replacement batteries when the ones you're using die. But the new Logitech Wireless Desktop MK710 has you covered, combining cable-free operation with a stunning three-year battery life for both its mouse and keyboard.

Despite the low profile of the MK710 ($99.99; www.log itech.com), the keyboard features long key travel (the distance from the beginning of a key press to the end of the key press) to boost comfort, along with Logitech's Incurve keys, which are concave and have rounded edges to help fingers glide as they move from key to key. For even more comfort, the MK710 keyboard has a cushioned palm rest.

Like certain other Logitech mice, the MK710 mouse includes "hyper-fast" scrolling, which lets you click the mouse wheel to enable free spinning (as opposed to clicked spinning). This function is useful for scrolling through long Web pages, large digital photo or music libraries, spreadsheets, or other long documents, and, according to Logitech, you can use hyper-fast scrolling to scroll from line zero to line 10,000 in a mere seven seconds.

The MK710 has an LCD dashboard on the keyboard that indicates battery life along with other keyboard status elements. The MK710's Logitech Unifying receiver is not only tiny enough to leave in a laptop at all times, but it also works with a host of other Logitech peripherals. ∎

Along with an impressive three-year battery life, the Logitech MK710 combo includes free-spinning mouse scrolling technology and other features designed to ease typing.

Mobility Sees More Horsepower On Horizon

Application developers deservedly get plenty of credit for helping to transform mobile devices into go-anywhere, do-anything wonders, but the applications are only as good as the horsepower beneath those mobile hoods. With this in mind, we can expect even better mobile applications soon thanks to advances such as Marvell's recently announced processing platform.

Marvell's new Armada 618 application processor features gigahertz-class speed, integrating 1080p (full high-definition) encoding and decoding, and 3D graphics delivered through an engine that renders 45 million triangles per second.

Designed for high-end multimedia smartphones, this processor also includes a flexible display controller that can accommodate four simultaneous displays at up to 2,000 x 2,000 resolution. Also onboard is a security subsystem, complete with a secure execution processor. Currently being sampled to Marvell customers, the Armada 618 supports Android, Linux, Windows Mobile, and Adobe Flash.

Marvell (www.marvell.com) also took the wraps off its Pantheon platform, which blends the company's multimedia processing, wireless connectivity, and modem technology to form a path for creating mass-market, $99 smartphones. Despite the platform's low price, Marvell says manufacturers will still be able to create smartphones that have "excellent performance." ∎

Create Your Own BUG Build

Many *Smart Computing* readers have taken the plunge and built their own desktop PCs. Now, you can build your own mobile device with the BUGbase, a module-based computer from Bug Labs.

The BUGbase WiFi ($449; www.buglabs.net) is primarily targeted at inventors and platform creators who want to prototype portable devices, such as heart rate monitors or card readers. But even for average everyday tinkerers, the BUGbase is supremely attractive for its extreme flexibility. The base module is Linux-based and includes a miniature LCD, flash storage, Wi-Fi, Bluetooth, rechargeable battery, USB, and serial I/O (input/output) ports.

Once you have the BUGbase, you can add up to four modules to create exactly the device you're seeking. These include a motion detector and accelerometer, a radio module for home automation or similar uses, a GPS receiver, an audio module, a touch-sensitive LCD screen, and others.

The base includes a 532MHz ARM 11 microprocessor, 128MB of RAM (and 32MB of onboard flash storage), hardware graphics acceleration, and smart power management. With its integrated Wi-Fi, you can connect the BUG to any wireless network. And, of course, the entire platform is open-source, so you're encouraged to "hack away" at the modules to devise whatever you like. ▮

Now you can build your own mobile device with the BUGbase, an open-source, module-based computer that lets you add components such as GPS or sound to a base unit.

My Windows 7 system is slow to respond after it sits idle for a while.

Check the power settings to see if Windows is turning off your hard drive after a predefined amount of time. Open the Control Panel, click Hardware And Sound, select Power Options, click Change Plan Settings beside the selected plan, and then click Change Advanced Power Settings. Double-click the Hard Disk entry to expand it and then double-click Turn Off Hard Disk After. Use the arrows to change the setting to Never and click Apply and OK.

After upgrading to Win7, I can no longer watch video content on my dual monitors.

If you have an older or budget video card, you might encounter problems in Win7 when trying to watch video on two monitors (for example, a game on the left monitor and video on the right). This can stem from the hefty video requirements of the Windows Aero interface, so try turning off Aero. Right-click your Desktop, click Personalize, and click Windows 7 Basic under Basic And High Contrast Themes.

Jobs sent to my wireless printer take too long to start.

If you're not happy with the sluggish response times of your wireless printer, try relocating the printer closer to your wireless router to achieve a better signal. If your router has moveable antennas, try aiming them toward the printer, or consider moving your router closer to the printer.

My PC isn't booting and is emitting alternating high and low beeps.

Although this beep code varies among BIOS (Basic Input/Output System) developers, this particular code typically indicates that your CPU is not properly seated in its motherboard slot or that the CPU is overheating. First, check that the CPU fan is running. If so, turn off and unplug your PC, ground yourself with an antistatic wristband, and reseat the CPU in its motherboard slot. ▮

MOBILE TECHNOLOGY

Windows Phone 7 Breaks Shocking New Ground

If you've grown accustomed to the Windows Mobile interface over the years, you could be in for a shock when you see Microsoft's newest mobile operating system. The new Windows Phone 7 Series ditches the Start menu and other elements that have traditionally graced Windows Mobile devices, opting instead for a slick, streamlined approach intended to provide quick access to commonly used functions.

The interface on popular devices such as Apple's iPhone and Motorola's Droid don't require an advanced degree to navigate, so perhaps it's no surprise that Microsoft finally broke away from the detailed interface that was a hallmark of Windows Mobile smartphones. What is surprising is that the WP7 interface is more streamlined than even the iPhone interface, though there remains plenty of depth behind the few on-screen buttons that do appear on the WP7 home screen.

This home screen now uses dynamically updated "live tiles" that display real-time content for Web, phone, texting, people, music/video, and others. This content is derived from hubs that reflect popular smartphone activities. For example, the People hub pulls together social networking content and lets WP7 users post Facebook (or other) updates in just one step. Another hub is based on Zune and includes content from the phone user's PC, online music services, and a built-in FM radio.

The concept is designed to reflect what Microsoft's mobile team calls "life in motion." To create this concept, Microsoft's engineers and designers had to completely break down not only the interface itself, but also smartphones themselves and the process through which Microsoft interacts with the mobile industry, including mobile application developers, phone makers, and service providers.

"We made a very big decision to reexamine everything, because the industries surrounding mobile are at an inflection point," said Andy Lees, senior vice president of Microsoft's Mobile Communications Business. "The technological advances over the past few years enable us to do bold new things we've never done before. But the most important thing is that we are bringing it all together with an almost maniacal focus on the consumer."

Although Microsoft has provided plenty of early glimpses at its radical new mobile platform, consumers will have to wait awhile to try it. Smartphones using WP7 aren't expected to hit the market before the 2010 holiday season, but designs are well underway, with models expected from Samsung, Dell, HTC, LG, Sony Ericsson, Toshiba, HP, and others. ∎

Thanks to a complete platform overhaul, future Windows-based smartphones will forgo the traditional Windows look for a new hub-based interface that pulls together commonly used functions into groups.

News From The Help Desk

Our Most Common Tech Calls

COMPILED BY KRIS GLASER BRAMBILA

Each month, we receive numerous technical support calls and email messages. Some computer problems are fairly common, and we find that many callers struggle to resolve the same issues. In this article, we cover some of the most common or timely tech support questions and provide our solution for each of them.

Q Whenever I download a file from the Internet using Mozilla Firefox, it automatically saves the file to my Downloads folder. Is there a way to change the location that my downloaded files save to?

A Mozilla Firefox lets you choose where you want to save the files you download from the Internet, and makes it easy to do so. The next time you launch Firefox, go to the Tools menu and select Options. Under the Main tab, locate the Downloads section. Click the radio button next to the Save Files To option. Firefox automatically saves any downloaded files to a particular folder (typically the Downloads folder), but you can change this by selecting the Browse button and using the Browse For Folder window to navigate to a different location. You can easily create a new folder within the Browse For Folder menu by selecting Make New Folder. When you've selected your preferred folder, click OK.

If you don't want all of your downloaded files going to the same folder, you can also instruct Firefox to ask you each time where you want a downloaded file to be saved. Simply click the radio button next to Always Ask Me Where To Save Files.

Other selections in the Downloads section include the option of showing or not showing the Downloads window while a file is being downloaded. (To show the Downloads box, check the Show The Downloads Window When Downloading A File box.) When a file has been downloaded, the Downloads window automatically remains open, but you can direct Firefox to close the Downloads window when a download is complete by checkmarking the Close It When All Downloads Are Finished box.
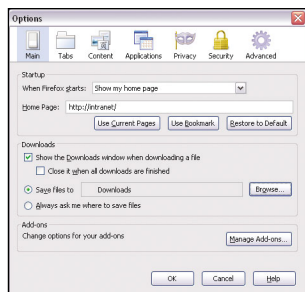
Mozilla Firefox lets you change the location to which your downloaded files will be saved, or lets you choose a different location for every file you download.

Q Somehow, I managed to change a mystery setting, and now my Desktop icons are larger than normal. What do I have to do to get them back to their regular size?

A Every version of Windows lets you customize how your icons appear on the Desktop. In Windows XP, you can change the size of your Desktop icons in one of two ways. First, right-click the Desktop and choose Properties. Under the Appearance tab, click the Effects button. Placing a check mark next to Use Large Icons will make your Desktop's icons larger, while removing the check mark will make them smaller. If you want to further customize your icons, click the Advanced button under the Appearance tab and then choose Icon from the drop-down list under Item. You can increase or decrease the size of your icons by pressing the Up and Down arrows in the Size category. Windows XP icons are automatically set to size 32. You can
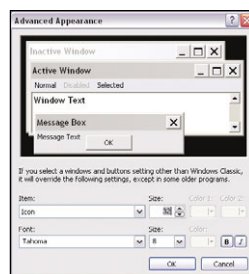
You can change the size of the Desktop icons via the Control Panel. In Windows Vista and Windows 7, you can also quickly change the size of your Desktop icons by pressing CTRL, ALT, and using the scroll wheel on your mouse.

also change the size of your Icon's font by selecting a number in the Size drop-down list.

In Windows Vista and Windows 7, you can change the size of your Desktop icons by right-clicking anywhere on the Desktop, choosing View, and then selecting Large Icons, Medium Icons, or Classic Icons (called Small Icons in Win7). You can also simultaneously press CTRL and ALT and use the scroll wheel on your mouse to increase and decrease the size of your icons.

Q I have a wireless router installed in my basement that I use for connecting my laptop to the Internet. I also have a desktop computer in my office upstairs. There isn't an Ethernet port available upstairs, so is there a way I can make my desktop computer wireless, like my laptop?

A Absolutely. Giving your desktop computer wireless capabilities is easy and relatively inexpensive. All you

Wireless adapters come in various shapes and sizes. Some wireless adapters fit into one of the PCI (Peripheral Component Interconnect) slots on your computer's motherboard and have an antenna that you can position to acquire the optimum wireless signal.

need is a wireless adapter, which is a receiver that connects to your computer and communicates with your wireless router.

Wireless adapters come in various shapes and sizes. Some wireless adapters fit into one of the PCI (Peripheral Component Interconnect) slots on your computer's motherboard and have an antenna that you can position to acquire the optimum wireless signal. Some fit directly into one of the USB ports on your computer and look like USB flash drives. Others are a combination of the two, connecting via USB, but having a small box with an antenna that you can place on a desk or attach to the side of your computer case. Some users prefer this type of adapter because they can move the adapter until they find the location that provides the best reception. You'll find PCI and USB wireless adapters for $20 to $50.

Q A friend recently gave me a disc full of pictures and videos from her family's latest vacation. I am able to view the files on my laptop computer, but not on my desktop computer. My desktop will run other discs without any problems. What could be wrong?

A If the disc will play on one computer but not another, it's not likely that the disc is damaged. Still, you can try cleaning the disc with a cloth dampened with water or disc cleaner. Avoid scratching the disc by starting at the center and wiping outward, rather than in a circular motion.

If the drive on your desktop will still play other discs, chances are the drive is functioning properly. In this case, the cause of this problem could be a compatibility issue. It could be that the picture and video disc is a DVD. While your laptop may have a CD/DVD burner or player, your desktop may only be able to play CDs. If your picture and video disc is in fact a DVD (the disc type will usually be printed on the top of the disc), the next step is to determine what types of media your drive can play.

Some drives have a label that clearly states whether it's a CD or DVD player, and whether it can read data, write data, or do both. If your drive doesn't have a label, you can determine its functions by looking in the Device Manager. In WinXP, access the Device Manager by going to the Control Panel and clicking Performance And Maintenance, System, and the Device Manager button on the Hardware tab. In Vista and Win7, search for Device Manager via the Start menu.

Locate the DVD/CD-ROM Drives category and double-click it to expand the list of installed devices. Although an exact model may not be listed, you can determine the function of your disc drive by looking for CD, DVD, or both.

You can also determine what type of optical drive you have by downloading an application called PC Wizard, which will automatically scan your computer and list all of its connected hardware and devices. To download, go to www.cpuid.com and click PC Wizard on the left, under Software. Under the Download Latest Version section on the next page, click PC Wizard 2010.1.93 and save the file to your hard drive. Once the file has downloaded, double-click it to begin the installation.

You can work around this problem by transferring the media from your laptop to your desktop via a USB flash drive. ∎

Feature Package Topics

Each *Smart Computing* issue includes tips, reviews, and information about a variety of topics. However, each issue also has a featured group of articles about a selected topic. Below is a list of the Feature Packages from the previous year. As a *Smart Computing* subscriber, you have access to all of our archived articles at www.smartcomputing.com.

May 2009	Restore Windows
June 2009	Get More Mileage Out Of Your PC
July 2009	8 PC Emergencies
August 2009	Stay Safe Online
September 2009	Master Your Browser
October 2009	Driver Updates
Fall Issue	Upgrade Your PC
November 2009	Windows 7
December 2009	Holiday Gift Guide
January 2010	Maintain Your Family Computer
February 2010	Upgrade Your Notebook
March 2010	Troubleshoot Windows 7

Get Fit With Fitbit
Track Your Daily Activities

LINNÉ OURADA

SEND YOUR COMMENTS TO
LINNE@SMARTCOMPUTING.COM

If you've ever worn a pedometer (that little device you clip to your waist to keep track of footsteps), you know how fun (and often surprising) it is to see just how many strides you've taken in a given day.

The Fitbit is a step above the average pedometer (pun intended). Not only does it count your daily steps, but it also tracks your calories burned, the distance you've traveled, and your sleep patterns.

The Fitbit uses a 3D sensor to give it the best possible accuracy in tracking your motions. (The company claims it has an accuracy rate of 95 to 97% for counting steps.) You simply clip it to your waist or chest. (You may choose to place it in a loose pocket, but Fitbit warns that doing so will give you less accurate step and calorie counts.) Fitbit's single button lets you cycle through a blue display to see your steps, calories, and miles. The last display has a flower, which shrinks and grows depending on your activity levels throughout the day.

Fitbit's base station connects to your computer via USB. You use it to charge your device (a full battery lasts five to 10 days) and to sync and upload data to your computer. Your daily stats are wirelessly transmitted every 15 minutes whenever it is within 15 feet of the base, and your data is then automatically uploaded to your computer (when you're logged in to your account). If you are away from your computer for a longer stretch of time, say, on vacation, don't leave the Fitbit behind—the device is able to store your data for up to seven days and then upload that information once you get back within range of the base station.

Fitbit
$99
Fitbit
orders@fitbit.com
www.fitbit.com

Before I put on my walking shoes, I visited www.fitbit.com/start to download and install the software required to upload data (Fitbit is compatible with Windows and Mac). After installation, I was directed to the Fitbit Registration where I entered my email and created a password to set up my account and profile. Once logged in, the Fitbit dashboard shows your daily totals, visually documented as colorful charts and graphs.

For the most part, the Fitbit works on its own—simply wear it and let it do its thing. However, if you want to use the Fitbit to its fullest extent, it requires a little legwork. To gain a precise balance of your calorie intake vs. your calories burned, you'll need to log your daily meals and manually enter any physical activities you perform aside from walking.

It only took a couple of weeks before I grew tired of logging every cup of coffee and entering every gym visit—I just simply forgot. However, anyone who already keeps a daily food journal will likely appreciate Fitbit's extensive database of more than 50,000 food listings.

To track your sleep, wrap the included band around your wrist, tuck the Fitbit into the provided slot, and hold the button for two seconds. The screen will display Start to indicate you are in sleep mode; when you wake up, you'll do the same thing to exit sleep mode. Once the data uploads to your computer, you'll see your "sleep efficiency," including how long it took you to fall asleep and how many times you awoke.

The sleep tracker is certainly an intriguing feature, but it didn't tell me anything I didn't already know. I'm well aware of the fact that I tend to toss and turn in my sleep. On the nights that Fitbit reported my sleep efficiency to be less than 90%, I tried to connect patterns to my restlessness. (Was it a stressful day? That Mountain Dew I chugged an hour before bed? "The Late Show with David Letterman"?) I was never able to make a strong connection, and my sleeping habits remain the same as they've always been.

For some, a pedometer is a great motivator to push you one step further to reaching your personal goals. The Fitbit is a neat little device with big potential, but you must be willing to dedicate a little effort to get the most benefit out of everything it has to offer. ∎

On-The-Go Power
Alternative Chargers

TARA SIMMONS BANTAM

SEND YOUR COMMENTS TO
TARA@SMARTCOMPUTING.COM

My electronic devices provide a certain sense of security. I'm never truly lost if I have my GPS (global positioning system) device, and as long as I have my cell phone, help for most situations is at hand. But when disaster strikes, an outlet isn't always nearby. Two chargers I tested recently help pull the plug on outlet dependency and let you charge small devices with alternative energy.

YoGen Mobile Charger

The YoGen Mobile Charger is a lightweight (just 3.5 ounces) device about the size of a deck of cards that lets you manually give a power boost to things such as MP3 players, phones, and GPS devices. The YoGen comes with changeable charging tips that attach to the device. (It's available in two versions: One version comes with Apple and miniUSB tips and the other with LG, Sony Ericsson, Nokia, and microUSB tips.)

Not quite as yo-yo-like as the name implies, the YoGen has a cord you pull to generate energy. After connecting the YoGen to my iPod nano, I grabbed the flat plastic handle connected to the pull cord and gave it a pull. The handle, though small, was easy to grip, and the tension didn't seem excessive. Gears inside the device reel the cord back in, and a green LED (light-emitting diode) lets you know energy is being transferred. Repeat (and repeat and repeat), and you're on your way to powering up your device. I was a bit hesitant to use too much force at first, but even after considerable use, the nylon cord remained firmly anchored to the handle.

Easy Energy reports that the YoGen charges at a rate similar to standard AC chargers. And with a steady stream of pulls, that seemed to hold true. Though, I'll admit I never got to a full charge. After about 30 minutes, my iPod's battery had increased incrementally, and I didn't have the patience to keep it up for the three hours normally required to charge my nano completely. Charging smaller devices such as my Bluetooth headset was less of a chore. The motion isn't particularly strenuous, but doing it for long enough to charge most devices fully would be tiresome, and that isn't really the point of this unit. Rather, it's meant to give your device a temporary boost between regular charging or in emergency situations. The YoGen would be a smart addition to a survival kit, and it's a great idea for a camping or hiking trip.

Keystone ECO Portable Solar Panel Chargers

If person-powered charging sounds a little too hands-on to you, the Keystone ECO Portable Solar Panel Charger (which will be available for purchase in April) might be more your style. As long as you have clear, sunny skies, this charger is a cinch to use. Connect it to a USB-chargeable device (cords not included), such as an MP3 player or smartphone, place the panel in a sunny area, and you're set. In my tests, the panel successfully charged iPods and a cell phone even in partial light. In direct light, it took about three hours to charge my not-quite-dead iPod nano.

The Keystone ECO is available in a three-panel model and a larger six-panel model. The smaller model (which I tested) is about the size and thickness of a mouse pad. Each size is also available in a flat or foldable version. And while both versions feel sturdy, I'd be more comfortable packing around the latter version as it folds up into a 2- x 8-inch rectangle (secured by two built-in snap buttons) that protects the solar panels.

Of course, the drawback to a solar panel is that there's a limit to when you can use it. The Keystone ECO doesn't store power, so its abilities as an emergency power source are limited by the weather and time of day. The YoGen doesn't store power either, but as long as you can pull the cord, you're set. Both devices are a good source of power in a pinch. ∎

Keystone ECO Portable Solar Panel Chargers
$39.99 (three-panel charger)
$79.99 (six-panel charger)
Concord Keystone Trading
customersupport@concord keystone.com
www.concordkeystone.com

YoGen Mobile Charger
$39.99
Easy Energy
info@yogenstore.com
www.yogenstore.com

Notes From A PC Build
Spare Parts Pay Off

MARTY SEMS

SEND YOUR COMMENTS TO
MARTY@SMARTCOMPUTING.COM
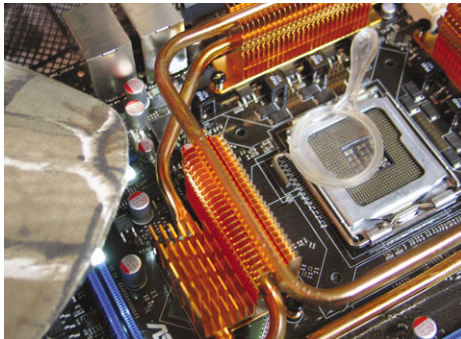
My February column on being a do-it-myself packrat seemed to strike a chord with several readers. Their emails of solidarity put a grin on my face this past week as I tested a pile of computer parts I'd bought at auction.

Said pile tested my resourcefulness as a scrounger and a troubleshooter, but I eventually turned the circuit board chaos into a respectable PC. Now let's see whether I can turn a pile of unrelated observations into a respectable column. Who knows? Some of my scrawlings might help you the next time you work on your computer.

Illumination. I don't know about your eyes, but mine just don't seem to focus as well as they used to without enough light. My weekend involved a lot of crawling under a dark desk to connect PC cables. After a few frustrating flashlight fumbles, I put on a cap with LED lights in the brim (www.panthervision.com). Sure, it looked kind of dorky, but it lit up everything nicely and left both of my hands free.

Resurrection. A couple of the motherboards I bought at the auction didn't work. At least, not straight off. Various troubleshooting forums suggested that I try using 1.8-volt RAM in one of the boards instead of my 2.1V memory. But before I broke down and bought some, another comment prompted me to check the 775 teensy-weensy pins in the CPU socket. Using a magnifying glass, I found and fixed a bent pin, and *voila*: The motherboard came back from the dead.

Modernization. Next, I learned from Gigabyte's Web site (www.gigabyte.us) that the board I liked best would support the AMD processor I wanted to use (a Phenom II X4; www.amd.com), but only if I updated the BIOS (Basic Input/Output System) first. Fortunately, the board's existing BIOS version supported a Phenom X3 I had, so I could run the motherboard long enough to launch its built-in Qflash BIOS update utility. Qflash wouldn't recognize a FAT32-formatted USB flash drive with the new BIOS file on it, although it should have, so I had to use a floppy diskette instead. Once the update installed, however, I swapped in the quad-core Phenom II, and it worked perfectly.

Another modern addition was a 30GB Vertex Turbo SSD (solid-state drive) from OCZ (www.ocztechnology.com). There's only enough room on it for Windows—I still use much cheaper hard drives for mass storage—but the SSD's lightning-fast random accesses speed up bootup and everyday OS (operating system) tasks.

Finally, I installed ATI (ati.amd.com) graphics cards with hardware acceleration for high-definition video, which reduces the load on the CPU. Also, with 10 times the shaders (programmable cores) of my last PC's video card, the combined might of the ATI cards should radically improve video editing and encoding performance.

Improvisation. There was other comprisin' on the road to my horizon. The Gigabyte board stopped recognizing my IDE optical drives, so I had to borrow a SATA (Serial Advanced Technology Attachment) one so I could install Windows. Occasionally I had to borrow a jumper from another motherboard to clear the Gigabyte board's BIOS settings, because the latter didn't have one.

After a successful Windows install, the onboard audio outputs seemed to have their speaker channels mixed up. I had to install and launch Gigabyte's sound management software, plug in my speaker cables one at a time, and tell the software which cable belonged to which speakers.

Sometimes I had to reboot twice or more to get Windows to "see" some hardware I had added, such as the second and third ATI graphics cards. Speaking of which, a side effect of having three video cards in a CrossfireX configuration is apparently a bootup screen that's completely blank until Windows' welcome page appears. This was as disconcerting as it sounds.

Conservation. Most power supplies are most efficient at half their rated wattage. Fortunately, my new PC pulls a maximum of 386W under a heavy load, so my 650W OCZ PSU (power supply unit) will waste very little energy as heat. In other words, for the lowest electricity bill, buy twice as much PSU as you need. ∎

Movea Gyration Air Mouse Elite
To The Air

BLAINE FLAMIG

SEND YOUR COMMENTS TO
blaine@smartcomputing.com

I first crossed paths with Movea back in December 2008 (page 17) when I reviewed the company's Gyration Air Mouse. Aesthetically, the bulky, grayish Air Mouse didn't knock my socks off. What did was the versatility that Movea gifted the Air Mouse with by way of the company's proprietary Motion-Sense technology and MotionTools software. MotionSense let the Air Mouse work while being held in the air, and MotionTools provided scores of user configuration options.

With the new Gyration Air Mouse Elite, an ambidextrous wireless (2.4GHz radio frequency) laser model, Movea has retained all the resourcefulness of the original Air Mouse but crafted a new black and silver exterior sporting curves aplenty to complement streamlined, ergonomic contours. Combine the attractiveness with MotionSense and MotionTools and you're left with a peripheral that's as compelling an option for HTPC (home-theater PC) owners as it is for mobile professionals, teachers, or anyone else who regularly gives notebook-driven presentations.

The Elite's most intriguing feature is its use of MotionSense. Think of Nintendo's wireless Wii Remote and you get the idea behind MotionSense. On a desktop, the Elite works pretty much as you'd expect a standard laser mouse with three buttons and scroll wheel (no side-to-side scrolling) to operate. Off the desktop, however, the Elite looks and feels like a "Star Trek" phaser complete with built-in trigger. Press the trigger and MotionSense lets you guide the mouse cursor on a monitor or TV screen up to 100 feet away from the mouse's USB receiver, including through walls and around other obstacles.

MotionSense is made possible by a small, 2D gyroscope in the mouse that measures "the angle and speed of movement to move a cursor between two points, thus allowing users to select content or enable features on the mouse simply by pointing in the air." In my tests, controlling the mouse cursor by hand was smooth and impressively accurate (after a few hours of practice). Overall, the Elite's ability to easily scroll folders of photos

and music, plus navigate Web pages at Hulu.com or YouTube.com, from the comfort of the couch is outstanding.

Enhancing this handheld mousing freedom are the vast configuration possibilities that the MotionTools software makes possible. Positively, using MotionTools is a largely graphical, intuitive experience. For example, configuring the Elite's buttons with Motion-Tools is as easy as dragging and dropping the icon for a specific function to the corresponding button on the mouse as presented in MotionTools' interface.

MotionTools also provides four profiles (General, Internet, Media Player, and Presentation) containing specific preconfigured mouse functions. You can easily reassign the buttons' functions, however. So, in the Presentation profile, for example, you can assign a highlighter, stamp, or laser pointer to the mouse buttons or configure the buttons to launch a slideshow and move back and forth through slides when clicked. In the Media Player profile, you can configure the buttons to display an audio playlist, play/pause tracks, skip tracks, increase or decrease the volume, and more. Or you could configure the buttons to simply launch Internet Explorer, Outlook, or other programs when clicked.

For HTPC owners, arguably better than the button configuration choices are the in-air mouse gestures that MotionTools supports. For example, you can lower the volume in Windows Media Player via a mouse gesture that involves swiping the mouse downward in the air. Want to easily move through slides in a PowerPoint presentation? Configure MotionTools to move one slide ahead with a right mouse swipe or backward with a left mouse swipe. Want to use an upward swipe to display an on-screen keyboard when using the Internet profile? MotionTools can do that and much more.

For all-day, desktop-laden work, there are still other mice I prefer to the Air Mouse Elite, primarily because I don't find ambidextrous mice as comfortable as those specifically for right-handers. For HTPC- and presentation-related uses, however, the Elite is an excellent match. Further, its new body, shape, and colors also make the Elite a looker that should easily find a home in any mobile pro's notebook bag or in any HTPC owner's living room. ∎

Gyration Air Mouse Elite
$99.99
Movea
(800) 316-5432
www.gyration.com

Head-To-Head: Blog Services
Share Your World On The Web

If you don't already have one, chances are your neighbor, co-worker, friend, or grandchild does. We're talking about a blog, or Web log, an online journal of personal activities, a collection of commentaries, or a gathering of significant pictures and videos. Although blogs can take on a variety of forms, they have one main thing in common: They're created by people with interests and opinions they'd like to share.

Most blogs have other things in common, too. For example, you can customize how you want your blog to look by using a template, and readers can respond to your blog posts by writing their own comments for you and other visitors to see.

If you were to create a blog, what would it be about? Would you share stories from your latest travel adventures, offer tips on how to grow a successful garden, or advocate animal adoption? No matter what your interests, there's a blog service for you. We'll take a look at the features offered by some of the most popular blog hosting services.

fonts, and text sizes, and see the changes you've made instantly. Blogger also incorporates Gadgets, which are page elements that add tools to the sidebar of your blog, such as a slideshow, video, or link list. You can arrange your Gadgets by clicking the Page Elements section under the Layout tab and simply dragging and dropping them in place. For more adventurous users, Blogger also lets you edit your template's underlying HTML (Hypertext Markup Language) code, but it's not necessary that you do so to create a unique blog.

Like any hobby, you might want to share blogging with family and friends. Blogger lets you add additional authors to your blog, allowing them to add posts, pictures, and videos just as you would. We like that Blogger makes it easy to add authors by simply sending an email invitation. (To send an invitation, click the Settings tab and then click Permissions. Next, click the Add Authors button.)

Blogger has other features we found useful, too. For example, you can select who can view your blog on the Web: anybody, only those you choose, or only other blog authors. Blogger also offers free hosting if you have a domain name, so instead of your blog having the address www.example.blogspot.com, your address would be www.example.com.

Blogger

In fact, you can even register a domain via Blogger, which is the easiest way to pair your Blogger blog with a domain. You can find more information about adding a domain to Blogger at tinyurl.com/ydcy3tq.
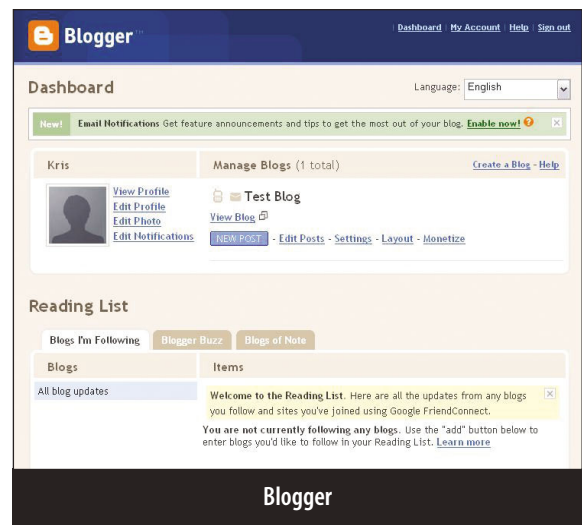
Blogger

If you are starting a blog, you likely want to start sharing your thoughts, pictures, and videos right away. Blogger lets you create a personalized blog in minutes using a simple user interface. Start off by choosing one of twelve layout templates, then customize with just a few button-clicks. You can quickly change colors,

WordPress

WordPress

The first thing we noticed about WordPress was the abundance of themes, or templates, it offers. There are about 80 themes in all, and some have extra sidebars where you can place Widgets, such as blog stats, a calendar, photos from your Flickr account, recent comments from your blog,

Windows Live Spaces
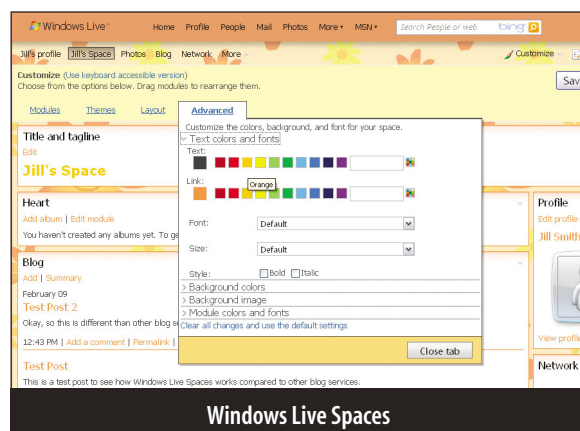
or Twitter updates. Other themes also let you upload your own image to use as the header, making your blog even more personal.

Like some of the other blogs we mention, WordPress allows you to add multiple authors to your blog, so you can create a site where everyone can share their thoughts. You can add as many users as you'd like, just as WordPress lets you create as many blogs as you want under one account.

WordPress' user interface was a little confusing at first, but once we delved into creating our blog, it was clear to us which of the settings tabs on the left side of the screen we needed to click to customize each aspect of our blog. Although there were dozens of themes to choose from, we were a little disappointed that we couldn't easily change colors on many themes or change fonts without looking at the CSS (Cascading Style Sheets) code for each theme. If you like the themes just as they are, WordPress is easy to use and offers plenty of extras; however, if you want complete control over your blog's theme, but don't know CSS, WordPress might be too advanced for you.

Windows Live Spaces

While the formats of other blog services seem to give way to a multitude of uses, Windows Live Spaces is most definitely a place to share information about yourself, your hobbies, and your interests. In other words, it's all about you.

Once we started creating our Space (Windows Live's term for "blog"), we found many of the same features that other blog hosting services offer. You can customize your space with one of several themes, which include designs based on animals, nature, art, and sports. One of our favorite features is that, no matter which theme we chose, we could change its layout to have zero to four columns, offering a more versatile use of each theme. You can also change the location of the modules on your page, such as profile and network information, simply by dragging and dropping them into your preferred arrangement.

Further customize your page by changing the theme's colors. Simply choose the Advanced option under the Customize section and experiment with changing your space's text color and font, background color and image, and the colors of your modules.

In addition to listing every post in reverse chronological order, Windows Live Spaces also features navigation links at the top of your space. Clicking one of the links, such as Photos or Blog, will take you or guests to a separate page to view only those items, rather than all of your space's items at once.

Weebly

The first thing you'll notice when you start working with Weebly is that it's more than just a blog hosting service. In reality, Weebly is a whole Web site creator, so you can start a blog and then add other pages to help you articulate your ideas or cause. Although the thought of creating an entire Web site may seem overwhelming, Weebly makes it easy with a complete drag-and-drop interface. For each page or blog you create, you can add text, pictures, YouTube videos, photo galleries, forms, polls, and more. You can even create your own store on Weebly using PayPal and Google Checkout elements.

Although Weebly offers more than 70 templates for you to choose from, we're a little disappointed that it doesn't have a simple drag-and-drop

method of changing template colors or fonts. But if you know HTML or CSS, you'll have no trouble customizing the templates for your needs.

With Weebly's free account, you can have up to two Web sites, and each of your Web sites can have as many pages or blogs as you'd like. Weebly also offers a Pro account for $4.58 per month (for 6 months), which grants you a total of 10 Web sites under one account, and several other functions, including password-protected pages, an integrated audio and video player, and embedded documents.

Last but not least, we like that Weebly can host your domain free, giving you the ability to create an entire Web site without having to pay for additional hosting services.

Weebly

Tumblr

Tumblr

When it comes to creating a blog all about you and the things you love, you want it to be personal. That's why we were pleased when we found that Tumblr gives you hundreds of themes to choose from. It also lets you make changes to those themes by clicking Customize and then choosing the Appearance tab. You can change the color of your blog's header, content background, text, and other appearance settings depending on the theme you choose. Tumblr also lets you create your own themes by using CSS.
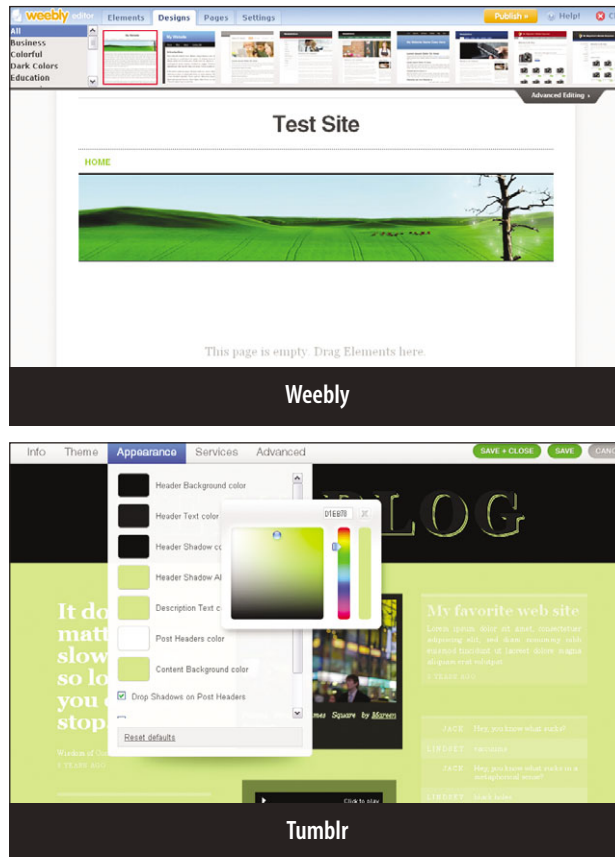
Tumblr can also integrate with popular social networking sites such as Facebook and Twitter, so your blog posts will appear on your social profile pages. And if one of your friends or family members wants to join in on the fun, you can start a group blog and add as many additional authors as you want.

We found Tumblr's various posting methods (find it in the Goodies section) very useful. After setting up a private Tumblr email address, you can send text messages or emails with pictures, videos, or music that will automatically post on your blog. You can also try an add-in for AOL Instant Messenger, which lets you instant message your posts. Lastly, you can even call in your posts from your phone and record an audio post for your blog.

Speedy Blogging

If you'd rather not spend a great deal of time crafting lengthy blog posts, but still want to share your thoughts on the Web, check out Twitter (www.twitter.com), a popular microblogging site. Microblogging is different from traditional blogging because with most services, you only have a limited space to share a thought, idea, status, or link to an online article, picture, or video. With Twitter, your posts must be 140 characters or less. ▐▌

BY KRIS GLASER BRAMBILA

PRODUCT INFORMATION

Product Name	Price	Company	URL	Notable Features
Blogger	Free	Google	www.blogger.com	Multiple blogs, multiple authors, no-code theme editor, free domain hosting
WordPress	Free	WordPress	www.wordpress.com	Multiple authors, various sidebar widgets, customizable CSS themes
Windows Live Spaces	Free	Microsoft	www.spaces.live.com	Dozens of template skins, change theme colors with a few clicks, change layout of any theme
Weebly	Free; Pro account $4.58/month	Weebly	www.weebly.com	Complete Web site builder, drag-and-drop interface, customizable CSS themes, free domain hosting
Tumblr	Free	Tumblr	www.tumblr.com	Multiple authors, hundreds of themes, customizable CSS and HTML themes, no-code theme editor

Powerful Text Recognition
OmniPage 17

$149.99 I **Nuance Communications**
(800) 654-1187 I **www.nuance.com**

WinXP Vista

Key Features: The world's leading text-recognition software touts increased accuracy (99+%) and can retain formatting and searchability of documents for review and editing.

With the release of OmniPage 17, Nuance Communications continues to make it easy for users to archive and access printed documents. For years, OCR (optical character recognition) has been a bugbear for PC users who need to extract the text from printed pages.

OmniPage has always been one of the better options in this regard, supporting scanning and OCR directly within the program. With this release, Nuance has further enhanced its engine to ensure the greatest accuracy possible. Users will still experience mixed results with handwritten documents, depending on how clearly they are written. However, the OCR results are excellent with printed documents—even those that have been faxed or otherwise replicated in a less-than-perfect fashion. An added treat is OmniPage's ability to recognize and import text from photo and other nondocument file types—150 recognized formats in all.

Getting Started

Installation is easier than before with OmniPage 17. By default, OmniPage will install the full feature set, so users don't need to change settings unless they need to save space. Installation takes less than 20 minutes.

Once installation is complete, OmniPage does not offer to launch and run tutorials. Rather, users should open the program from the Start menu (click Programs and then open the Nuance OmniPage 17 folder) to get started. From there, they can run the scanner wizard to integrate OmniPage with an installed scanner or open the program to begin. Nuance touts its faster launch time (200%), letting users get down to business more quickly.

For newbies, the Getting Started and How-To Guides options on the Help menu offer assistance. Nuance touts the update of its How-To Guides with OmniPage 17, but we think training is an area where the program could still use improvement.

Up & Running

Once you are in OmniPage, you can perform such a world of functions that they are hard to cover here. You can view and open multiple documents at once, convert scanned forms to editable digital forms, scan and convert text into Kindle format for transmission to a Kindle Reader, and more. With OmniPage 17, the program's ability to retain formatting of documents has improved, with users selecting from several default formats (such as single or multicolumn) or being able to specify a custom layout.

You can take snapshots with your camera or iPhone, and OmniPage will adjust for the text distortions common with these formats. You can also access some of OmniPage's features from within Windows Explorer and Microsoft Office. Everything you convert will be fully searchable.

Once conversion and other work is complete, you can save your results to a variety of formats including PDF or transmit them via email or Internet upload. OmniPage also lets you rearrange its interface to suit your personal tastes, and you can automate complex processes using a new Workflow Assistant.

Powerful & Precise

OmniPage is so feature rich that it will take you awhile to master it. However, for someone who processes a lot of printed documents—or who has ever had to rekey them—the product is worth its weight in gold. If you face large archival and retrieval tasks, take a look at OmniPage Professional 17 ($499.99), which includes PaperPort (a paper management program) and is even more powerful. ▮

BY Jennifer Farwell

An Updated Browser
Firefox 3.6

Windows 2000 WinXP Vista Win7 Mac Linux

Release 3.6 is an incremental upgrade from the more significant Release 3.5, which debuted last year (and was covered in the October issue of *Smart Computing*). Nevertheless, this release offers new functionality for users and new goodies for Web developers.

The showiest addition to 3.6 is Personas, a lightweight skinning feature that lets you quickly personalize the visuals of your display. Personas don't alter the layout or change buttons and menus in the way that Firefox's Themes do. They should also be less likely to cause conflicts with other Firefox add-ons and plug-ins.

Speaking of which, the other new feature, Plugin Check, enables Firefox to better manage plug-ins—applets that

Key Features: This popular alternative to Internet Explorer offers a new theme feature, stronger plug-in support, and a more robust developer environment.

enable another program or service to work within Firefox. Unsecure, out-of-date plug-ins can make your browser vulnerable to malicious exploits, but Firefox can now automatically warn you of that possibility.

The rest of the improvements are developer-related and not visible on the surface, but over time, they should make the user experience richer. Release 3.6 is a worthy upgrade for existing users and makes the

case even more compelling for nonusers to give this baby a test drive. **▌▌**

BY JENNIFER FARWELL

Save Typing Time
PhraseExpress Standard Edition

Windows 2000 WinXP Vista Win7

PhraseExpress is a nifty utility that lets you store frequently used data— text snippets, images, even entire documents. You can then insert them easily while typing in a variety of programs. If you waste precious minutes rekeying the same phrase or hunting for images or other data, this program is for you.

Phrase Express has many other ease-of-use features. It recognizes and records repetitive text you type, offering to complete it for you later. Like Microsoft Word and other document processing programs, it has an AutoText feature that expands common abbreviations into the complete word, and it can import your AutoCorrect entries from Word and make them available to you elsewhere (you can also add your own). It incorporates a math feature that

Key Features: PhraseExpress makes it easy to locate and use oft-needed information and reference material.

calculates as you type and comes preloaded with useful phrases.

Installation of the product is fast and straightforward, with the installer asking you questions such as the need for network access and then offering to launch the program and run a Web-based tutorial. It also warns that you may have to tell your antispyware to trust PhraseExpress (this is safe).

PhraseExpress is free for personal use and has other features not ex-

plored here. It will prompt you for purchase if it senses commercial usage. Licenses range from $29.95 to $139.95 depending on the version. **▌▌**
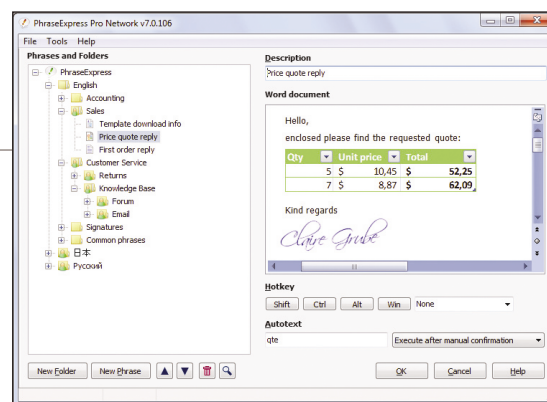
BY JENNIFER FARWELL

Microsoft News

Bill Gates Starts Personal Web Site, Gets Twitter Account

Although no longer officially running the company he co-founded, Bill Gates is still a busy guy with a lot on his mind. The Microsoft chairman has set up a personal Web site called The Gates Notes (www.thegatesnotes.com), which features articles and podcasts about the work of his charitable foundation as well as personal thoughts on various global issues including health, energy, and climate change.

Bill Gates also recently set up a Twitter account; you can follow his musings at twitter.com/billgates.
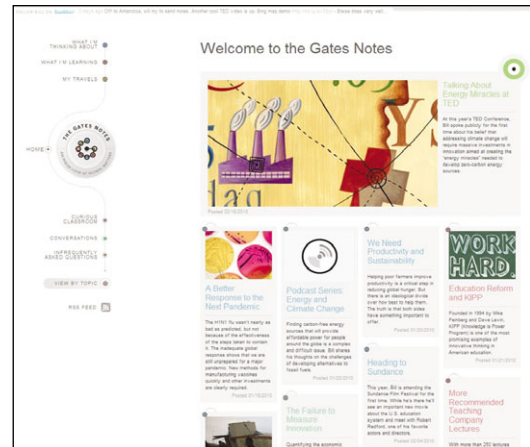
Follow Bill Gates' musings at his official Web site.

Microsoft To Improve Bing Search Privacy

In response to concerns about the privacy of search results—as well as the need to comply with European Union regulations on data privacy—Microsoft has announced it will reduce the amount of time Bing saves the IP (Internet Protocol) address of users who perform queries.

Under Bing's new privacy policy, the IP address associated with search queries will be deleted after six months, rather than the current 18 months. The new policy doesn't go into effect immediately; Microsoft plans to implement it sometime within the next 12 to 18 months.
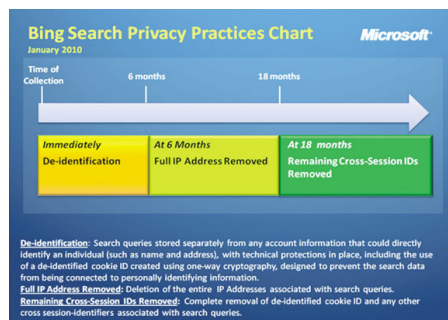
Bing will soon cut the time it retains searchers' IP addresses.

Microsoft & Amazon Sign Patent Deal

Microsoft and Amazon have entered into an agreement that will give each company access to the other's patents. The companies disclosed few details of the deal, but it does include Amazon's Kindle ebook reader and involves Amazon paying Microsoft an undisclosed sum.

Windows News

Microsoft Investigates Windows 7 Battery Complaints

Microsoft recently found itself investigating a possible problem with Windows 7 and laptop batteries after receiving a flurry of complaints from users that the operating system was draining batteries too quickly and/or warning users to "consider replacing your battery."

After researching the situation with users and system manufacturers, Microsoft has concluded that Win7 is not actually causing batteries to fail, but rather is accurately detecting and reporting the status of degraded batteries on some systems that are more than about 18 months old. The company says it has no confirmed reports of problems with new systems or batteries.

The battery replacement notification reported by users is new to Win7 and is designed to appear when a battery reaches 40% of its original capacity.
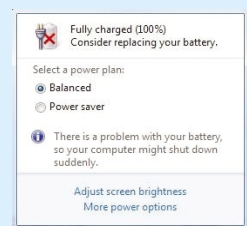
Some Win7 users with older systems are getting notification that it may be time for a new battery.

Windows Tips

Record Info Quickly With Sticky Notes (Windows 7)

If you're in the habit of jotting quick notes down on paper even when you're sitting at the computer, check out Windows 7's Sticky Notes (just search for "Sticky" via the Start menu), which lets you type up bits of information on-screen. Sticky Notes can be resized and arranged anywhere on your Desktop, and by right-clicking a note, you can choose one of six colors.

Sticky Notes doesn't let you hide or show individual notes—the X in the upper-right corner of each note actually deletes it, albeit after confirming that's what you want to do—but clicking on Sticky Notes' Taskbar icon will alternately hide or show all of your notes. Also, although Sticky Notes doesn't support drag and drop for text, you can use cut, copy, and paste to rearrange text within a note or move it between notes.

Win7's Sticky Notes let you jot down quick info on your Desktop.

Get Vista's Window Switcher Taskbar Button In Windows 7

One of the coolest visual effects of Vista and Win7's Aero feature is Flip 3D, which lets you view and select from a three-dimensional stack of all your open windows. In Vista, in addition to using the standard WIN (the Windows logo key)-TAB keystroke combo to activate Flip 3D, you can also do so solely with the mouse by clicking the Switch Between Windows button that is part of the default Quick Launch toolbar.

The Quick Launch toolbar—and thus the Flip 3D button—was removed in Windows 7 due to the Taskbar redesign, but you can bring it back. Right-click on the Desktop and choose New and then Shortcut. Next, type in **%WinDir%\System32\rundll32.exe dwmapi #105**. Click Next, give the shortcut a name (such as Flip 3D) on the next screen, and click Finish.

To replace the blank page icon, right-click the shortcut, select Properties, click Change Icon on the Shortcut tab, type **%SystemRoot%\explorer.exe** in the box, and click OK. Make a selection and click OK. (The original Vista icon is the second to last one in the third row.) Finally, right-click the shortcut and choose Pin To Taskbar.

Add Run Command To Start Menu (Windows Vista, Win7)

The Run command, which can be a handy way to launch not just command line utilities, but Windows programs and even Web sites, is a standard feature of Windows XP's Start menu. You won't find the Run command on the Start menu of either Windows Vista or Win7, but you can add it to either OS (operating system).

Right-click the Start button, then choose Properties. Next click on the Start Menu tab (make sure the Start Menu radio button is selected in Vista) and then click the Customize button. Now scroll down until you see the Run Command box (the list is alphabetical, so you'll find it toward the bottom), checkmark it and then click OK twice. You'll now see the Run command on the bottom of the right side of the Start menu.

You can add WinXP's Start menu Run command to Vista and Win7.

Windows Phone 7 Series Unveiled

At a recent industry show in Barcelona, Spain, Microsoft took the wraps off the newest iteration of its smartphone operating system, dubbed Windows Phone 7 Series.

Windows Phone 7 Series is a major overhaul of the current Windows Mobile 6.5 rather than an incremental update. The new operating system is less business-centric and sports a completely redesigned interface with new features such as Xbox Live and Zune integration. Microsoft is also imposing minimum hardware requirements on Windows Phone 7 Series devices, such as integrated GPS and high-resolution touchscreens.

Phones running Windows Phone 7 Series are due by the 2010 holiday shopping season.

The forthcoming Windows Phone 7 Series has a completely revamped look and feel.
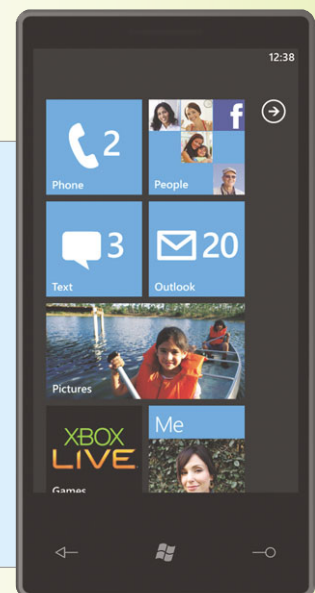
Windows XP

Use Keyboard Shortcuts For Quick Commands

You can create keyboard shortcuts for program shortcuts on the Desktop or Start menu. Choose a key combination that helps you remember how to open programs quickly.

You are probably familiar enough with Windows XP to name a few keyboard shortcuts. But, do you know them so well that you could navigate the Desktop, open programs, and manage documents without using your mouse? In addition to the standard copy (CTRL-C), cut (CTRL-X), paste (CTRL-V), and undo (CTRL-Z) commands, there are a host of shortcuts that will give you just as much control as your mouse would and also save you time. Read on for a refresher on some shortcut standbys and plenty of new tricks for your shortcut bag.

The majority of shortcuts utilize a press-and-hold sequence of two or more keys, specifically the CTRL, ALT, SHIFT, and WIN (the Windows logo) keys. Add to this ENTER, the arrow keys, and the function keys at the top of your keyboard, and you'll be equipped to execute plenty of keyboard commands.

General Use

The ALT button is important for displaying data about active items and programs. For example, ALT-ENTER lets you see the properties of a selected item or object. For instance, you could select a Microsoft Word file and find the date it was created, the file size, and more. If you want to toggle among open items (such as among a Microsoft Word document, Internet Explorer window, and Outlook), press ALT-TAB and release both buttons when you've selected the desired item in the program icon box. ALT-ESC lets you rotate through all active programs in the order they were opened. To open a new file in most programs, press CTRL-N. If you're sure you want to delete an item permanently instead of sending it to the Recycle Bin, select the item and press SHIFT-DELETE.

F Keys

Though it might seem like that row of numbered F keys at the top of your keybord isn't particularly useful, most are actually designated for a specific shortcut command. Pressing F1 in an active program opens the Help menu. F2 lets you rename a selected item such as a file, folder, or shortcut. When you need to search for a file or folder, click the Desktop or an Explorer window and press F3. Next, F4 drops down the Address Bar list in My Computer or Windows Explorer, so you can quickly locate your PC folders. Pressing F6 enables you to cycle through features on the Desktop or in a selected window, and F10 triggers the menu bar in a selected program.
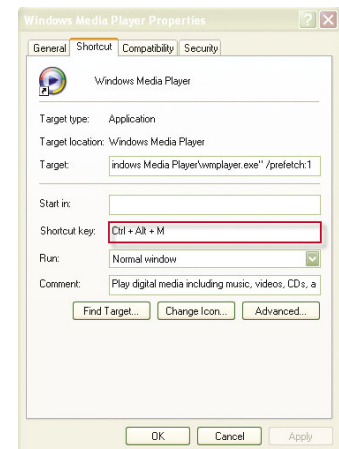
Desktop Commands

There are a number of commands you can perform directly from the Desktop when other programs are open. Many commands involve the Windows logo key and one or two additional keys. Accessing the Start Menu only requires a single press of the Windows

CREATE YOUR OWN SHORTCUTS

Windows XP lets you create personalized shortcuts for any programs that use Desktop or Start menu shortcuts. For example, go to the Desktop and right-click a shortcut, such as Windows Media Player, and select Properties. In the Windows Media Player Properties dialog box, click the Shortcut tab and select the Shortcut Key field. By default, the first two keys in the command will be CTRL-ALT. Choose a third key to add to the shortcut and click Apply to start using the shortcut.

logo key. You can navigate the menu using the arrow keys and choose programs by pressing the ENTER button. To open the Run window, press WIN-R. Or, you can open My Computer by pressing WIN-E. WIN-F will let you search for a file or folder. If you need to step away from your computer but don't want to log off completely, you can lock the Desktop with WIN-L. To show the Desktop, press WIN-D, then press WIN-D again to restore all

window's size. Press ENTER when you reach the desired size. To move the entire window, replace the *S* key with the *M* key and use the arrow keys as before. Minimizing and maximizing all windows involve changing one key when holding the initial sequence: Use ALT-Spacebar-N to minimize and ALT-Spacebar-X to maximize. WIN-M minimizes all windows; press SHIFT-WIN-M to undo the minimization.

Pressing ALT-TAB lets you scroll through open programs without clicking or moving multiple windows. Release the keys when you've decided which program to select.

windows. WIN-U will open the Utility Manager, which lets you modify settings for the Magnifier, Narrator, and On-Screen Keyboard.

Navigate Windows

The windows that let you make changes in a program use their own "language" of keyboard shortcuts, which primarily engage the CTRL, TAB, and SHIFT keys. You'll utilize these key sequences when you're changing settings in items such as the Options window in Microsoft Outlook. To cycle forward through tabs, press CTRL-TAB, and to move backward, press CTRL-SHIFT-TAB. When you've selected a tab (in this example, Mail Setup, Mail Format, etc.), you can scroll through the options by pressing TAB or go backward by pressing SHIFT-TAB. Pressing the ENTER key will select the active option; pressing the Spacebar will checkmark a box or clear it depending on its original status.

Manipulate Windows

Instead of using your mouse pointer to manage your open windows, you can press a few key sequences to put your windows just where you want them. You can resize a window by pressing ALT-Spacebar-S. After releasing the keys, use the arrow keys to change the

Text Editing & Formatting

When working in most word processing documents, you can use keyboard shortcuts to move around the document efficiently. You can bold selected text by pressing CTRL-B, toggle text underlining with CTRL-U, and italicize text with CTRL-I. To change from upper- to lowercase letters (and vice versa) or to capitalize the first letter of a word, press SHIFT-F3. Combining the CTRL key with the arrow keys allows you to move your cursor forward to the next word (CTRL-Right arrow) or backward to the previous word (CTRL-Left arrow). Using CTRL-Up arrow and CTRL-Down arrow moves up and down between line breaks in a document. The HOME key moves your cursor to the beginning of a line, and the END key performs the opposite. Add CTRL to HOME, and you'll jump to the start of the entire document, whereas adding it to END will move the cursor to the end of the document.

Stay On Key

Though using the mouse may seem convenient, keyboard shortcuts will help you navigate more efficiently when you teach your fingers how to make the keys work to your advantage. Take the time to learn even a few of these shortcuts, and you're sure to save some time and effort and give your mouse a rest. ❚❚

COMMON WINDOWS XP SHORTCUTS

We have compiled a chart full of common keyboard shortcuts you can use as a cheat sheet when working at your WinXP machine. Leave it next to your monitor for quick reference.

Open Run box	WIN-R
Open files and folders Search window	WIN-F
Minimize all windows	WIN-M
Lock computer	WIN-L
Open Utility Manager	WIN-U
Switch among open programs	ALT-TAB
Permanently delete an item	SHIFT-DELETE
Open Task Manager	CTRL-SHIFT-ESC
Open a Help file	F1
Take a screenshot and save to Clipboard	PRINT SCREEN
Select all	CTRL-A
Copy	CTRL-C
Paste	CTRL-V
Print	CTRL-P
Open	CTRL-O

BY JOANNA SAFFORD

Windows Vista

The ABCs Of Fonts

For many PC users, fonts are an afterthought. They may prefer one typeface over another, such as Times New Roman over Arial, but they never really think about their fonts. If this sounds like you, read on. Here, we'll introduce you to the basics of fontography and show you how to manage and expand (or reduce) your font collection.

Fonts 101

An entire group of typestyles (such as the standard version of the typestyle, the regular version, the bold version, and the italic version) is called the typeface family (sometimes font family). A font is a single typestyle, such as Times Roman Bold, within that family. On a PC, a font consists of one or more files that contain the information for programs to render the appearance of a particular typestyle in the requested size and with the correct spacing. Font files can, but do not necessarily, contain expanded character sets, supporting enhancements such as swashes (a flourish on a letter) as well as special and foreign language characters.

Prior to 2001, there were two main types of fonts on the market: PostScript and TrueType. Adobe's proprietary PostScript technology used special outline files that enabled even commercial printers to reproduce type beautifully at a variety of sizes.

Apple (www.apple.com) developed TrueType technology to compete with PostScript, and Microsoft adopted the TrueType standard with the release of Windows 3.1. TrueType fonts are scalable, meaning programs can increase or decrease the size of type without needing special files for printing. However, this technology is not always compatible with commercial printing equipment, so some graphics professionals avoid using TrueType fonts.

Today, Vista users can select from a third font format: OpenType. (Vista doesn't support other font specifications, so we won't discuss them here.) Developed by Microsoft in conjunction with Adobe, OpenType unites the best of both TrueType and PostScript technologies within a single format.

You may hear of another type variant: ClearType. ClearType is not actually a font specification, but rather a technology to render TrueType fonts more sharply on screen. All ClearType fonts will show up as TrueType in your programs.

True Or Open?

OpenType fonts are an extension of TrueType technology, and they retain many of its positive characteristics,

Most font menus in Vista preview the font's appearance and include a tag that tells you whether the font is TrueType or PostScript style.
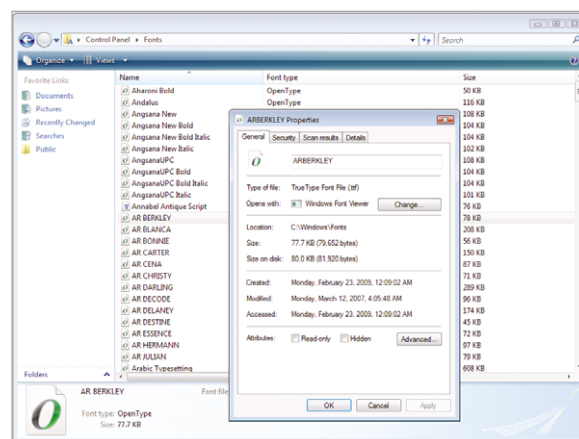
To find out more about a font, including whether an OpenType font is TrueType or PostScript oriented, right-click it in the Fonts folder and select Properties.

including scalability. However, OpenType files can also incorporate PostScript features and expanded character sets.

OpenType fonts that are TrueType have a filename extension of .ttf. OpenType fonts that are PostScript have a filename extension of .otf. This is an important distinction if you want to print your documents commercially, because some printers will not accept documents containing TrueType fonts of any sort.

Confusingly, Vista uses an O to designate all OpenType files (even if the file is OpenType TrueType) both in folders and on font menus in programs. To determine what type of OpenType font you have installed, you must explore its properties. (More about that later.) For native TrueType fonts, Vista always uses a TT icon.

The Add Font display in Vista looks outdated, but it makes adding fonts easy as long as you know their locations.

You should be able to see all installed TrueType and OpenType TrueType fonts in any program that offers font menus. Not all programs work with OpenType PostScript fonts. If you install OpenType PostScript fonts but they do not appear in a program, contact the program's developer (or search online) for PostScript drivers that might be required.

Inside The Folder

Vista comes with 90 TT fonts, and the programs you install will add more. You can remove fonts you don't want or use and you can add new fonts. The process is easy but not as versatile as earlier versions of Windows. (Some fonts come with a self-installer package that handles the installation for you.)

In Vista, the Fonts folder is your key to several font-related activities, including installation and removal. Here, you can also glean important information on the variants of OpenType fonts on your system. To open this folder, click the Start button and select Control Panel. Click Appearance and Personalization and under Fonts, click Install or Remove A Font. (If you are in the Control Panel's Classic View, select Fonts directly from Control Panel.)

In the default view, you will see an icon, such as O (OpenType) or TT (native TrueType) for every installed font. You may also see TC (TrueType Collection: groupings of virtually identical fonts) and A (special system-only fonts). To preview the appearance of any font, right-click its icon and select Open. To determine whether an OpenType font is TrueType (.ttf) or PostScript (.otf), right-click it and select Properties.

Install New Fonts In Vista

You can install fonts downloaded from the Internet. If the font file is compressed (i.e., zipped), extract it. If you acquire a typeface in multiple font formats, install just one format at a time to avoid potential problems.
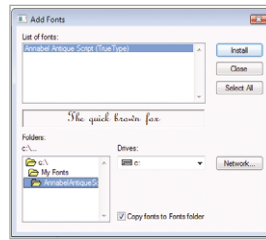
With the Fonts folder open, select Install New Font from the File menu. (If you don't see the File menu, press the ALT key or, for a permanent fix, click Organize, Layout, Menu Bar.) Make sure the checkbox in front of Copy Fonts To Fonts Folder is checked to keep your original file safe from deletion if you uninstall the font. In the Add Fonts display, use the Drives drop-down menu and Folders display to navigate to the location of the font. When the font appears in the List Of Fonts display, select it and click Install. If Windows requests permission, click Continue, then click Close.

Your font may appear immediately, even in open programs. If it doesn't, restart the program or Windows. If the new font still doesn't appear in a particular program, check with the program developer to ensure the font is compatible. If it doesn't appear in any program, check with the font provider to see if you need to install more than one font file.

Uninstall Fonts In Vista

With the Fonts folder open, click the icon for the font you wish to remove. To select more than one font, hold down the CTRL button as you click multiple icons. Right-click your selection (or click the File menu) and select Delete. If a User Accounts Control window appears, click Continue. Accept the prompt to remove the file. If Vista won't let you uninstall a font, close any open programs with font menus. If you still cannot uninstall the font, it may be a required system or program font.

Uninstalling a font will delete it from the folder but will not delete copies of the file stored elsewhere provided you copied the font there initially. To reinstall the font later, repeat the installation process described above.

Fonts For All

You can find a lot of fonts (including free ones) online. Be sure to confirm that the source is trustworthy before you install them. A good resource for licensed fonts is Fonts.com. For free fonts, Font Squirrel (www.fontsquirrel.com) is a good place to start.

We didn't discuss them here because their users are largely professional designers, but Vista users can install and use some types of native Adobe PostScript fonts. If you want to explore that world, both Fonts.com and Adobe's site (www.adobe.com) offer a wealth of information. ❚❚

Windows 7
Fax & Scan With Ease

Windows Fax And Scan is a simple Windows 7 utility that lets you scan and organize documents and photos, as well as send and receive faxes. Although the software isn't new (it was part of Windows Vista, albeit only the Business and Ultimate editions) it's included with all versions of Win7, so the new operating system marks the first time Windows Fax And Scan is widely available to the typical home user.

When it comes to scanning, Windows Fax And Scan will work with either a standalone scanner or an all-in-one printer with a built-in scanner. In the case of all-in-ones, it doesn't matter whether the device is directly attached to the PC via USB or connected to your home network via an integrated wired or wireless networking feature, as long as the scanner drivers are installed on the PC. Integrated networking capability is key, though—if your USB-based all-in-one printer has been networked by connecting it to a router or external print server, Windows Fax And Scan may not recognize it as a scanner. To verify that a networked scanner is usable from a PC, run Device Manager (search for it from the Start menu) and check that the scanner appears under the Imaging Devices category.

To run Windows Fax And Scan, just search for it from the Start menu, or to run it without typing, look for it toward the top of the list after you click Start and All Programs.

Profiles & Scan Options

To scan an item, click Scan at the bottom of the left pane and then click the New Scan button on the toolbar. When you choose a profile, Windows Fax And Scan will automatically set other scanner options such as paper source, color format, and file type accordingly. For example, the default profile, Photo, will scan in color and save the image as a JPEG (Joint Photographic Experts Group) file, while the Documents profile scans in grayscale and saves as a TIFF (Tagged Image File

Before scanning, choose a profile and/or adjust options such as paper source, color format, and file type.

Format) file. If a profile's settings aren't suitable, you can override them individually or use the Profile menu's Add Profile option to create a new custom profile of your own. (To customize one of the built-in profiles, choose Tools and Scan Settings from the main menu.)

If your scanner/printer has a sheet feeder, the Source setting will give you the option to scan from it instead of the flatbed (the scanner glass). Choosing the feeder will give you the ability to scan documents that are too long for the flatbed, and it can be a real time-saver when you need to scan multiple pages. When a feeder is available, it will be the default source for the Documents profile, and if the feeder supports it, you'll have the option to scan not just one, but both sides of a page.

When using a feeder as the source, keep a few important caveats in mind. First, when you scan from a feeder, depending on your printer, you likely can't preview and crop a scan before saving it (more on previewing in a moment). Also, choosing a feeder automatically sets the paper size to Legal (8.5 x 14 inches), not the more common Letter (8.5 x 11 inches) size. Therefore, unless you're actually scanning legal-sized documents, you'll want to change this to Letter or each scanned page will have three inches of extra white space at the end. Finally, when you scan multiple pages from a feeder (be they photos or documents) and use the TIFF format, Windows Fax And Scan automatically saves them all within a single file. Therefore, when scanning multiple documents from a feeder—or photos if you've chosen the TIFF format over the default JPEG—put them in the feeder one at a time so they'll be scanned separately.

Whether you're scanning photos or documents—from the flatbed or the feeder—you can adjust the default resolution of 200 dpi (dots per inch), and the choices available will depend on the capabilities of your scanner. Depending on the quality of the original, scanning it at a higher
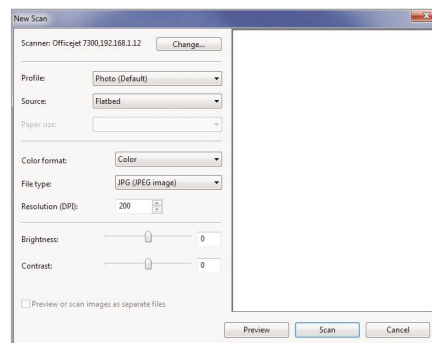
resolution may result in a sharper and more detailed scan, but be advised that doing so also takes longer and results in a larger file.

Scan & Manage Scans

When you're satisfied with your chosen scan settings, click Preview or Scan. The Preview button—which is typically only available when using the flatbed—will do a quick preliminary scan, which you can crop by clicking and dragging the dotted lines (handy when scanning an item that's smaller than the flatbed). Then when you click Scan, Windows Fax And Scan will only scan and save the cropped area, eliminating extra white space in the image. (*NOTE: The Preview Or Scan Files As Separate Images checkbox will be grayed out unless your scanner has the ability to recognize multiple items on the flatbed and save them as individual images.*)

When your scan is complete, it will be shown in Windows Fax And Scan's right pane with a generic file name. To give a scan a more descriptive name, right-click it (either the scan's name or the image itself) and choose Rename.

Scans are automatically saved to a Scanned Documents folder inside your My Documents folder. To organize your scans, you can set up new folders within Scanned Documents by right-clicking Scan in the left pane and selecting New Folder. (One subfolder, Documents, is already created for you.) Unfortunately, you can't drag scans from the right pane into a folder on the left, but you can right-click a scan (or multiple scans) and use the Move To Folder option. To save a copy of a scan somewhere else, right-click and choose Save As or use the Save As button in the toolbar. (The original will remain in the Scanned Documents folder.)

To send a scan via email, highlight the scan and click the Forward As Email button. A new email message will be created with the scan file automatically added as an attachment. (This only works if you have email software installed and configured on your system.) If you have Windows Fax And Scan set up for faxing, you can fax a scanned item by using the Forward As Fax button.

Faxing

Windows Fax And Scan works a bit differently for faxing than for scanning. The software is designed to work with a fax modem installed in (or connected to) a PC, so if your all-in-one printer includes faxing support, you won't be able to access the feature

Use the Preview button, then click and drag the dotted line to crop out your scan before saving it.

through Windows Fax And Scan. If your PC is equipped with a fax modem, you'll see it listed in Device Manager (search for it via the Start menu) under the Modems category.

Before using Windows Fax And Scan for faxing, be sure to remember to connect the fax modem to your phone line, and if you have Internet-based VoIP (Voice over IP) home phone service, check with your provider to make sure faxing is supported (sometimes it isn't).

The first time you click New Fax, Windows Fax And Scan will detect your fax modem and launch a wizard that will walk you through configuring it, including whether to notify you about incoming calls or answer them automatically, which is important depending on whether your PC shares a phone line with an answering machine. Then, you'll be able to manage incoming and outgoing faxes much like you do scans as outlined previously. To switch between fax and scan modes, use the Fax and Scan buttons at the bottom of the left pane.

Win7's Fax And Scan doesn't have the advanced features often found in commercial scanner software, such as the ability to save scanned documents as PDF files or import scanned text into a word processing program. But when you don't have other software handy—or you have it but find it difficult to use—Windows Fax And Scan is a convenient, easy-to-use, and free option. ▮▮

BY CHAD DENTON

When your scan is complete, it's listed in Windows Fax And Scan where you can rename it, move it, or forward it.

Update GPS Device Maps

A dedicated GPS (global positioning system) device is a great way to provide peace of mind on that journey to point B. Looking for the nearest burger joint? Your GPS device knows where to find it and is ready to take you there via the quickest route. Surprised by a closed road? Your GPS device can calculate a detour while you drive.

But over time, places change. Burger joints disappear, new roads are built, and new subdivisions rise in the ever-expanding suburbs. As a result, your GPS unit doesn't always have the latest information.

Thankfully, providing your GPS device with the latest updates is an easy and straightforward task. In this article, we'll walk through the process of getting the current maps for your hardware.

How It Works

GPS devices don't update like computers do; they don't automatically connect to the Internet to download updates in the background. It's a manual process that requires a little time to complete.

For this project, we used a Garmin nüvi 255W ($179.99; www.garmin.com), which is a widescreen GPS device. (The process for updating GPS devices may differ among manufacturers and models, and the following steps are to be used as general guidelines.)

The Garmin units let you download one free map update after your purchase (provided you register your device within 60 days of acquiring satellites while driving with your device). Beyond that, you can expect to spend about $70 on future updates, which come out four times a year. The company also makes a lifetime update available for $119.99.

All those roads and points of interest for North America add up to more than 2GB of data. You can acquire the data on DVD or an SD (Secure Digital) card (the Nuvi 255W has a built-in SD card reader), although, we opted to download it. Garmin also makes available enhanced maps, providing detailed information for cities in different regions of the world. These packages typically cost about $100, but they can be useful when you are traveling somewhere new.

For this project, we'll be taking advantage of the standard map update. Let's see how you get it and install it.

Registration

The nüvi 255W includes a mini-USB port; just connect the device to your computer to get started. Garmin's site includes a personalized area where you can manage your device. By visiting my.garmin.com, you'll be able to register your GPS device and then get maps and hardware updates (see the "Update GPS Device Software" sidebar for more information).

If you haven't done so already, create a new account on the Garmin portal. It's a simple process of entering your name and email address. Create a password to go along with it, and you're set. Next, you'll find yourself at a dashboard page, which lets you manage your device registrations (you can manage more than one device as long as it's registered), support tickets, and maps.

The first step to getting maps on your unit is to register. At the Garmin site, you'll find the Register link in your dashboard. You'll be asked to choose the

Sometimes, GPS devices need directions, too. If you don't update your device's maps, you may find that the GPS device can't find new locations.

product type (for the nüvi, we chose the Automotive, Fitness, Sport Or Outdoor Devices category) and then you'll be able to proceed with the registration.

Install The Browser Plug-in

Garmin interfaces directly with your GPS unit during this process, so be sure to have it plugged into your computer. This happens thanks to a plug-in for your browser, called the Garmin Communicator Plugin (tinyurl.com /389l9n). You will need to sidetrack from the product registration to install the software. The browser plug-in is compatible with Internet Explorer, Firefox, and Safari, so ensure you're using one of those browsers.

Click the Download link for the plug-in. Once the download is complete, you'll find an installer application wherever you chose to save on your hard drive; open that and follow the steps to complete the installation. (You'll have to close your browser before you begin this process.) This is a standard software installer, so you can safely accept the default options.

Once the install is complete, the installer will open your browser to a test page to verify that the plug-in is working. Assuming that the install

worked, you'll see a big green check mark; click the Continue button to proceed with your device registration. You'll be asked for your serial number, which you can find printed on the device. With that complete, you'll have a registered device, and you can then proceed with a map update.

Get Updated Maps

After finishing your device registration, you'll see a button labeled Find Map Updates. You'll then be offered a list of maps, including any free maps that are available. In our case, we were offered the nüMaps Guarantee map, the free map update made available to first-time users. This is a complete set of maps for North America, and it replaced the set that came with our device.

With your map selected, follow the instructions to begin the download. Garmin uses a browser-based download manager; it asks you for a place to save the file and then begins the download.

You should see this page after you successfully install the Garmin Communicator Plugin for your browser.

When the download completes, double-click to open the file. This installer application takes care of interfacing with your GPS device. Follow the steps to put the new maps on your device: Choose the correct device from the list of those connected to your computer and then choose the region for which to install the maps (we chose Full Coverage Of North America). With your choices made, the install process begins.

And when you're finished updating your GPS device maps, you'll have a gadget that will take you where you need to go, without directing you to the pizza place's old location. ▌▌

<div align="right">BY AARON VEGH</div>

Update GPS Device Software

While you're updating your GPS device maps, you might as well take a look at the device firmware, the software that acts as your GPS unit's operating system. From time to time, manufacturers issue software updates, which fix bugs, improve security, or even provide new capabilities. With a quick jaunt through these steps, you can ensure that you're running the latest software for your GPS device.

1 Just as we visited the Garmin personalized portal to get maps, we can also check for software updates. In the myDashboard section of the Web site, you'll find a box labeled Software Updates. When your nüvi (or other GPS device) is connected to your computer, the browser plug-in communicates with the device to check the current firmware version. In our case, we found a software update available.

2 Click Update Now.

3 A window opens in your browser, showing you the update progress as the software is downloaded and sent to your device. Interrupting a firmware update could permanently damage your device, so be sure to let the update finish before you proceed with anything else on your computer.

4 Once the update is complete, you'll be asked to

disconnect the device and let it restart. After it has restarted, turn it off again. (On the nüvi, there's a slider switch on top that powers the unit on/off.) Finally, reconnect the device to the computer and wait 30 seconds.

Once you have clicked the Done button, you'll be returned to the myDashboard page where the Software Updates box should report that your software is up-to-date. ▌

How To Buy An HDTV

A High-Def Primer

Buying a new TV these days is practically synonymous with buying an HDTV (high-definition TV). HDTVs have become popular for a variety of reasons. First, they're generally much thinner than old-style CRT (cathode ray tube) TVs. In fact, flat-screen varieties of HDTVs are skinny enough to hang on your wall like a framed painting.

Moreover, HDTVs are considerably broader than most tube TVs to accommodate widescreen movies and TV shows. Their wide **aspect ratio** (you can look up aspect ratio and other boldfaced terms in this article's "HDTV Glossary" sidebar) is generally a rectangular 16:9 as compared to the 4:3 screen of a "regular" TV, which is almost square-shaped.

Finally, an HDTV has much higher resolution. As a computer user, you may be used to the idea of monitors and laptop screens being available in various pixel widths and heights, such as 1,280 x 1,024 and 1,366 x 768. But until recent years, TVs only had the ability to show one type of video with a fairly low level of detail. HDTV adds support for the 720 and 1080 high-def video formats, both of which contain more pixel information and sharper detail than what we now call standard definition video (see the "Resolution"

sidebar for a more in-depth discussion of these).

Here is a quick overview of key things to shop for.

Budget

HDTV prices range from a few hundred dollars to several thousand, depending on screen size and the technologies onboard. For example, you can get a no-frills 40-inch set for less than $500 or a high-end powerhouse with the same screen size for about $1,600. Ad flyers and store circulars can help you get a feel for pricing in your area, just as Internet retailer sites can give you an idea of how far your dollar will stretch online.

Size

A TV will look bigger in your living room than in a large store, so try to have an idea of the size of HDTV you want to buy before you shop. This is especially critical if you have an entertainment center with a limited amount of space in its TV compartment.

HDTVs are sold by diagonal screen size. These typically range from about 22 to 73 inches, although you can get smaller or larger sets.

Of course, diagonal screen sizes aren't very helpful to many TV buyers, who only

know that they have a 40-by 30-inch rectangular space to fill. You can translate height and width dimensions into a diagonal screen size with an online calculator such as the one at tinyurl.com/ydpk6x4. Remember, though, that a TV's overall dimensions include the stand and bezel, which add several inches beyond the size of the screen.

Image Quality

There are a few image quality nuances you should look for on-screen. Don't worry; they're not overly technical. Assuming that the electronics store is feeding its HDTVs a high-quality signal, such as a BD (Blu-ray Disc) movie, you can trust your eyes more than the numbers on the TVs' specification sheets. Just be sure to check each HDTV's video settings to make sure they're set to default levels and try the various picture modes each TV offers.

Look for black parts of the video to appear truly black, not just dark gray (this is called having a numerically high **contrast ratio**); it's best, but usually not possible, to check this in a pitch-black room. Watch basketballs,

HDTV manufacturers try to outdo each other with the thinness of their sets. This Samsung 7 Series LED TV ($2,199.99 and up; www.samsung.com) has a screen only 1.2 inches deep.

Many 3D-capable HDTVs require the viewer to wear special active shutter glasses, such as these from Nvidia ($199 3D Vision Kit/$149 additional pairs of glasses; www.nvidia.com), while watching 3D video.
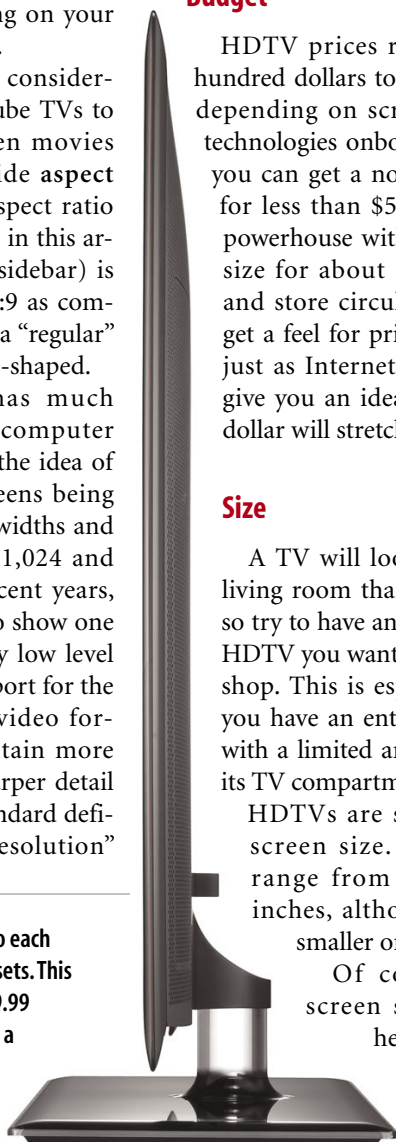
race cars, and other fast-moving subjects for fuzzy edges or motion blur. And check to see whether the screen looks noticeably dimmer from the side or from the floor.

While we're talking about screens, consider the kind of screen best suited for your TV room. A glossy screen can provide better contrast than a matte screen, for instance, but it can also reflect more glare if there are windows or lamps in the room.

Display Technology

We have seen gorgeous examples of each type of HDTV, along with plenty of so-so units, so there is really no "best" type of display technology from the perspective of image quality. On the other hand, each technology has its pros and cons. High-end sets tend to do a better job of minimizing the latter for a higher price.

The most popular HDTV display technology is the **LCD**, used in virtually every notebook and desktop monitor on the market. LCDs can be inexpensive in small to medium screen sizes, and offer 1080 resolution in more compact dimensions than plasma. Better models use high refresh rates of 120Hz and above, along with anti-judder features, to reduce motion blur.

LED-backlit LCDs, often called LED TVs, improve upon traditional LCDs in several respects. They generally use less electricity and can enhance color, brightness, and smoothness of motion.

Sharp's LC-68LE920UN AQUOS LED LCD TV ($6,499.99; sharpusa.com) is pricey, but its unique QuadPixel technology makes colors more lifelike by adding yellow pixels to the traditional red, green, and blue ones.

Resolution

With computer monitors, manufacturers describe resolution as horizontal by vertical pixel counts, such as 1,680 x 1,050. HDTV vendors take a different approach. They shorten the resolution figure to the vertical pixel count only, such as **720** (1,280 x 720) or **1080** (1,920 x 1,080). They also make approximations: A 720 HDTV may actually have a vertical screen height of 768 pixels, for example, instead of exactly 720.

A traditional analog CRT TV has a picture height of 480 scan lines (horizontal sweeps of an electron beam across the screen). Hence, the digital DVD format was made to match a CRT's screen height with a 720 x 480 pixel image. Once high-definition televisions came along, 720 x 480 video became known as **standard definition**.

There's something else in TV resolution figures, too. You'll notice a little "i" or "p" after the vertical screen height numeral, such as in 720p and 1080i. The "i" means that the video is **interlaced**, whereas a "p" indicates that the video is meant to be **progressively scanned**.

Let's give some examples. Old analog broadcast signals were 480i. DVDs are 480p, although they may appear at 480i on older TV sets unless the DVD player supports progressive scanning. HDTVs on the market are generally 720p or 1080p models these days, although many older and less expensive TVs topped out at 1080i, which happens to be the highest-definition format HDTV channels now use. Note that some 1080i and 720p sets may claim compatibility with 1080p content, but what this really means is that they will interlace and/or downscale the picture to fit the capabilities of their displays.

On a good HDTV, there is very little difference in picture quality among 720p, 1080i, and 1080p content. They'll all look much sharper than 480i/p video unless your DVD player or your TV is very good at upconverting standard material to high-def. (Your old DVDs should look fine on an HDTV's higher-resolution screen unless your DVD player uses a low-end video cable such as composite video.) However, on certain TVs, an interlaced picture can show comb artifacts, which means that the edges of fast-moving objects may seem to have thin, horizontal lines sticking out of them like the teeth of a comb. Likewise, some HDTVs exhibit motion blur or flicker as they display progressive video with a lot of dynamic motion. ∎

Some LED-LCDs use a feature called local dimming to make dark objects look deeper and richer. LED TVs are more expensive than LCDs, but prices are falling as more manufacturers have embraced LED backlights.

Colorful **plasma** TVs often match or beat LCDs in price, and yet they need no special features to keep up with sports and movies with speeding objects. They also excel at black levels and dark details. On the downside, plasmas are heavy, and they tend to emit more heat and use more energy than other types of TVs.

RPTVs, or rear-projection TVs, use display technologies such as DLP (Digital Light Processing) to put a good to great image on a large screen. Much deeper than a flat-panel TV, yet thinner than RPTVs of yore, this type of HDTV can be the most economical choice in big screen sizes. However, some are better than others for clarity and viewing from the sides.

Special Features

Now that the high-def TV market has matured and prices have fallen, manufacturers compete by adding bonus features to their TVs. Internet connectivity is a big promotional item these days. Once hooked up to a home network, many recent HDTVs can stream video from services such as Netflix. Some include widgets, or small, built-in programs, which can relay weather updates, news headlines, and other info to the screen.

In addition, some manufacturers are optimistic about 3D TVs. The gamble is that videophiles will want to see three-dimensional entertainment such as "Avatar" and "Coraline" in their living rooms, and that they'll pay extra for a new HDTV to get it—along with special glasses, special BDs, and a special BD player. DLP RPTVs pioneered the recent 3D TV movement, but today you'll find LCD and plasma 3D models, too. ▐▌

BY MARTY SEMS

Toshiba uses local dimming to give its Regza SV670 ($2,299.98 and up; tacp.toshiba.com/regza) LED LCD the ability to craft dark, rich blacks.

HDTV Glossary

480: Standard definition video such as DVD (720 x 480).

720: 1,280 x 720 HD video.

1080: The 1,920 x 1,080 high-definition video format.

aspect ratio: The relationship of the horizontal width and vertical height of the screen, such as 16:9 for a widescreen HDTV.

contrast ratio: The difference in brightness between the blackest black and the whitest white a TV can display. The static contrast ratio, such as 3,000:1, measures black and white shown on the same frame of video. Dynamic contrast ratio describes black and white levels shown in different frames, and can be a much greater number, such as 500,000:1.

HDMI: The High-Definition Multimedia Interface can carry high-def video and audio in a single cable. It also supports digital copy prevention technologies.

high definition: Video with at least 720 vertical pixels, such as 720p or 1080p.

interlaced: Video, such as 1080i, encoded so that half of each frame is displayed by the TV at a time. The viewer's persistence of vision makes the odd and even lines of video look like complete, moving images.

LCD: A traditional liquid-crystal display TV has CCFL (cold cathode fluorescent lamp) backlights along the edges of the screen, as in a computer monitor. In an LCD, electric signals direct a gel to either let the backlight shine through tiny, colored apertures (three per pixel) or to block the light to make a dark part of the picture.

LED backlighting: Light-emitting diodes can replace CCFLs in an LCD for better contrast, brightness, and energy efficiency. The result, a so-called LED TV, may be backlit by reflections from LEDs along the edges of the screen. Better models use a full panel (matrix) of LEDs behind the LCD screen, which allows the TV to shut off the light source behind black parts of the picture (local dimming) for better contrast.

plasma: In a plasma TV, electric signals excite neon and argon gases in tiny glass capsules (three per pixel). The excited gases cause colored phosphor coatings to glow, yielding a fast-updating picture with high contrast.

progressive scan: Video with frames intended to be displayed line by line sequentially, such as 1080p, in contrast to interlaced material, such as 1080i.

RPTV: A rear-projection TV uses one of a variety of techniques to throw an image on a typically large screen.

standard definition: Video with less than a 720 vertical pixel or scan line height. Most often refers to 480i or 480p.

COMPILED BY NATHAN LAKE

Many of our readers come across fast, easy ways to solve a problem or accomplish a task. Well, we'd like to hear about it! If you have a great tip you'd like to share, email us at readerstips@smart computing.com. If we print your tip, we'll send you a free *Smart Computing* T-shirt. You'll be the envy of all (well, some) of your friends.

Please include your first name, last name, and address, so that we can give you credit if we print your tip. (And so that we can send your T-shirt to you, of course.) Please limit your tip to 200 words or fewer. Not all tips received will be printed, and tips may be edited for length and clarity.

Short & Simple Tips To Make Things Easier

Sort Search Results In Windows Vista

If you're looking for a specific type of file, Windows Explorer in Windows Vista offers a handy organization feature. When you open Windows Explorer, the window typically features headings for Name, Date Modified, Type, and Folder. If you hover the mouse pointer over a field, such as Type, you can click a down arrow to arrange and filter what files appear. The options in the drop-down menu will vary by what field you select. For example, when you open a file folder, the Type field allows you to select specific file extensions, or you can click the Group button, which groups files with similar extensions. If you right-click one of the headings, Windows Explorer will list other assignment headings that you can add to Windows Explorer.

Harold J., Richland, Wash.

Name Your Computers

Our family has three computers that we share because they each have different purposes. User profiles have been created for each member of the family on all three computers. To make it easier to identify them, we gave each computer a name: Leo (the laptop), Raymond, and Sheldon. On the Sheldon computer, I've also reserved the P:, M:, and V: drive letters for pictures, music, and videos. When the kids ask for computer time, I tell them what computer they can use. For example: "You may use Raymond. I need Sheldon to do some Web design."

Robin B., Foristell, Mo.

Your Netbook As An Ebook Reader

Many netbooks feature an Intel graphics driver that allows you to switch the screen orientation from horizontal to vertical. With some, you can press the CTRL-ALT-Right arrow keys to switch to the vertical display; you can press CTRL-ALT-Up arrow to toggle back to the horizontal display. If the keyboard shortcuts don't work, right-click an empty area of your Desktop, select Graphics Properties, and choose Display Settings. Click Enable Rotation, select the 270 radio button, and click Apply. In terms of reading material, I've found that www.kobo books.com and www.gutenberg.org are two good Web sites for finding free downloads of ebooks and other materials. The content is generally available in PDF (Portable Document Format), HTML (Hypertext Markup Language), or plain text file formats.

Richard E., Chicago, Ill.

Windows 7 Configuration Shortcut

Looking for a quick way to access a specific configuration tool in Windows 7? You can create a folder on your Desktop that provides a shortcut to all the user configuration applets built into Win7. (*Editor's Note: This tip applies to 32-bit operating systems. It has been known to cause system crashes in 64-bit operating systems.*)

To create the shortcut, right-click the Desktop, select New, and choose Folder. When you name the folder, type **Manager.{ED7BA470-8E54-465E-825C-99712043E01C}**. Opening the resulting icon will allow you to change the functions of Win7 without needing to delve through the Control Panel.

Albert W., Bushton, Kan.

by Seth Colaner
seth@smartcomputing.com

The iPad Is Upon Us

I Want One! . . . Er, Do I?

Now that we Apple fans have had a chance to stop hyperventilating over the company's recent unveiling of the long-awaited iPad, many are trying to figure out how this thing fits into our paradigm of computing and if we actually want to pony up the cash for one.

There is much to discuss about the iPad, but let me begin with Apple's curious tag line for the tablet device: "Our most advanced technology in a magical and revolutionary device at an unbelievable price." Magical? Nope. Revolutionary? Maybe. Unbelievable price? Not really.

Apple seems to be trying just a little too hard to convince us (and themselves, perhaps?) that the iPad is the greatest thing since sliced bread. Watch the doe-eyed iPad product video on Apple's Web site (tinyurl.com/ygbr8x2). Afterward, you'll have to go eat some dirt just to get the saccharine taste out of your mouth.

Let's pop the hype bubble, look at key features of the iPad, and discuss where it may fit in your computing life.

Best Features

Quirky product videos aside, the iPad has several attractive features. Measuring 9.56 x 7.47 inches and half an inch thick, the iPad is smaller than a typical notebook computer, yet the screen real estate makes Web browsing and movie viewing comfortable. All models have Wi-Fi capabilities, and the higher-end versions sport 3G, ensuring virtually always-on Internet connectivity. The 3G subscription is reasonably priced, too ($29.99/month for an unlimited data plan).

The launch of the iPad brings with it the iBookstore, a third branch of the iTunes store. iBookstore will likely be to books and ereaders what the iPod was to music and music players—a game changer.

Image courtesy of Apple.

The Apple iPad is scheduled to ship on April 3.

All the games available on the iPhone and iPod touch will be available on the iPad, as well, except that the screen will obviously be bigger. Plus, developers are already hard at work developing better games for the new device, which may be another selling point for many consumers.

Although you have to purchase them separately, Apple offers some nice-looking accessories. One allows you to dock the iPad and use an external keyboard with it; another is a case that protects the screen when the iPad is not in use and can also prop the device up on a tabletop. Finally, a huge selling point: The battery purportedly lasts for 10 hours, even under strenuous use.

What It Lacks

The iPad is not a computer as we have come to think of a "computer"; that is, it's not a substitute for your notebook, or even for your netbook, really. It's also not a smartphone or PDA. It's something in the middle.

The iPad is missing some features you need on a full-use notebook, such as a USB port and an optical disc drive, not to mention a physical keyboard (unless you connect it to the external keyboard accessory) and mouse. Also, because the iPad runs on a version of the iPhone OS, not Mac OS X, you can't install software on it apart from what you can get in the App store. (There's nothing wrong with the App store, but if you want something it doesn't have, you're out of luck.)

You also cannot multitask (that is, you can't have multiple apps open at one time) on the iPad—another feature of the iPhone OS—with one exception: You can run the iPod while using other apps. It's annoying, but it's designed to enhance performance (it requires less from the processor) and battery life. The iPad also lacks Flash (or Microsoft Silverlight) support, so good luck trying to stream Netflix or Hulu.

I'd put the price in the negative column, as well, because although you can get a base model for $499, higher-end iPads will retail for as much as $829. Add in the fact that the $499 model only has 16GB of flash storage (the $829 model has a respectable 64GB), and that's an awful lot of cash to spend on something that isn't a go-to, fully featured computer.

The iPad will no doubt be amazing for what it is; it's just that *what it is* may be something we don't want.

If you're interested in the most gloriously appointed ereader ever made, or if you're happy dropping several hundred dollars on an amazing Internet-capable entertainment and gaming device, you'll want an iPad. For the rest of us, this may just be another luxury item we can do without. ▮

BY SETH COLANER

Mac Corner
iChat: Text, Audio & Video IM

Mac OS X has a built-in application for IM (instant messaging) called iChat. Many have come to view built-in applications with suspicion, assuming that whatever programs are slapped onto the OS (operating system) are going to be lacking in features. iChat, however, is a surprisingly full-featured instant messaging tool.

Setup

To use iChat, you'll need an instant messaging account. iChat supports MobileMe, AIM, Google Talk, and Jabber, so if you already have one of those, you can add it to iChat. You don't need to install iChat—it comes standard with Mac OS X.

Start iChat from the Dock or the Applications folder. The first time you launch it, you should see an Account Setup window. If you don't see this window, click the iChat menu and Preferences. When the window opens, click the Accounts tab. At the bottom-left corner of the window, click the plus (+) sign. When the window appears, set the account type, enter the account name, and type the password for that account. When you've entered all the requisite information, click Done.

If you don't already have an IM account elsewhere, you can create one in iChat. Navigate to the Accounts tab

under Preferences as before and click the plus sign. This time, however, instead of entering account information, click Get An iChat Account. This will open a Web browser at Apple's Web site where you can create an iChat ID (which will be [your name]@mac.com), create a password, enter your name and email address, and create security questions. When you've finished entering all the required information, click Continue. Your iChat account is now ready to go.

You'll want to set your status so your friends and family will know when you're available and when you're busy. You can set your status to a variety of things, such as Available, Surfing The Web, and Away. It's easy to make custom status messages, too. Click Edit Status Menu under the status drop-down list and click the plus button to add an Available or Away message. Then, enter your own custom text. You can also make your status Invisible so no one can see that you're online; or, simply set your status to offline.

Add & Manage Buddies

Before you can chat with anyone, you need to add him or her as a buddy. Click the Buddies menu and click Add Buddy. When the window appears, enter your friend or family member's account name and IM service (AIM, MobileMe, or Mac.com). Then, enter the person's first and last name, add the person to a group (Buddies, Family, or Co-Workers), and click Add. Repeat these steps for every person you wish to add to your Buddy list.

You can also add buddies from your address book. In the Add Buddy window, just type in the first and last name of someone in your address

book. If they have a valid IM account entered that iChat supports, click Add, and they'll automatically be added to your Buddy list.

Just like any list of friends and acquaintances, you'll need to manage your buddies. Some people in your Buddy list will be family or close friends, while others may be casual acquaintances or co-workers. You can organize all those names into groups for handy organization. The default groups are the aforementioned Buddies, Family, or Co-Workers, but you can also create custom groups. Click the plus sign at the bottom of the buddy list and select Add Group. Enter a name for the group and click Add, and you'll see the new group in your list. Click and drag a buddy in your list to any group to add them to it.

You can block someone you may not want to talk to very often or remove someone from your Buddy list entirely. To block someone, press CTRL and click his name in your Buddy list and then click Block [Name]. When the dialog box appears, click Block. (To unblock someone, CTRL-click his name and select Unblock [Name].) To remove a buddy entirely, click the person's name in the Buddy list and click the Buddies menu. Click Remove Buddy and click Delete when prompted.

iChat offers even more options with Parental Controls. Click the Apple menu, click System Preferences, and select Parental Controls (under System). When the Parental Controls window opens, click the lock at the bottom left of the window, enter your administrator password when prompted, and then click a user account you wish to alter. Click Enable Parental Controls (if necessary) to turn on the tool and click the Mail & iChat tab.

For the purposes of this article, ignore the Mail settings and checkmark the Limit iChat box. Click the plus sign toward the bottom of the window. When the resulting window appears, enter the name and account info of a person you'd like the child to be able to

Your Buddy list displays your IM contacts, organized by Buddies, Family, and Co-Workers.
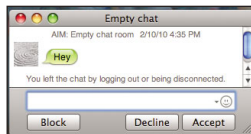
When you invite someone to chat, they have the option of accepting or declining your invitation.
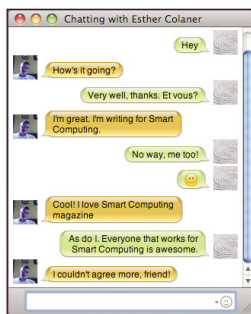
Text chatting in iChat has several simple yet attractive features.
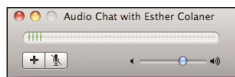
iChat's audio chat feature has a streamlined interface and is just like talking on the phone.

chat with, or just click the Down arrow next to the Last Name box and select someone from your address book. To remove a name from the list, click it and then click the minus (–) icon. When you've added as many names as you wish to the list, be sure to click the lock icon again—this will prevent anyone without your administrator password from making any changes.

Chat

There are several different ways of conversing in iChat, from simple text chats to video chat to adding the ability to share screens to get work done. To start a chat with one of your buddies, click his name in your list and then click the "A," phone icon, or video icon at the bottom of the AIM Buddy List window. Then start typing in the iChat window to initiate a conversation. The other person will be notified of the invitation and can accept or decline it.

Alternatively, to begin any chat, click File and New Chat; when the New Chat window appears, select what type of chat session you want to start (Text Chat, Audio Chat, Video Chat, Share My Screen, Share My Buddy's Screen). Fill out the To field with a buddy's name and click Chat.

In iChat, text chats display thumbnail images of you and the person with whom you're chatting. The text itself is clearly delineated with colored text bubbles that correspond to each member of the discussion. You can also click the smiley face icon at the bottom of the window to insert a variety of emoticons.

One impressive and powerful feature of text-based chat in iChat is the ability to transfer files. For example, if you were telling a friend about the great photo you took the other day, you can click and drag the photo into the chat. Press ENTER to send it. Your buddy has to accept the file to complete the transfer. You can keep track of your file transfers by clicking Window and File Transfers.

Start an audio chat by selecting a buddy from your list and clicking the phone icon at the bottom of your AIM Buddy List window. Once he accepts your invitation, you can have a conversation just like you would over the phone. Whoever starts the conversation can also invite additional people to the audio chat so you can have multiple people chatting at once. To do so, click the plus sign and select another buddy. In an audio chat, you can adjust the volume and mute your microphone, as well.

iChat also has the ability to video chat. Click a buddy's name on your list and select the video camera icon at the bottom of the AIM Buddy List window. Your friend's video image appears with your video image as a smaller thumbnail inside the same window. If you want to invite multiple video chatters, the person who initiated the chat can add another by clicking the plus sign and selecting another buddy. Three-way video chatting features a split screen of your compatriots' video images with a thumbnail of yours underneath.

You can display files within a video chat, too. Click the plus sign and select Share A File With iChat Theater (anyone in the chat can do this). Locate the file and open it. You can do this with a variety of file types. In every case, if you open a file, it will replace your video image on your friend's screen.

Thus, if you open a document, they can read it. If it's a photo or video, they can view or watch it, respectively, right in iChat. On your end, the document will open in a separate window, and you can control it. For example, if you have a long document, you can scroll through it so your friend can see the whole thing. For a video, you can pause and play, for example.

You can also share albums from iPhoto in a video chat. Click the plus sign, select Share iPhoto With iChat Theater, and, when prompted, navigate to a particular album and click Share. The album will automatically display as a slideshow in the video window, which you can control from your

Video chatting is easy in iChat, too.

computer. When you're done sharing a file or iPhoto album, just close that extra window, and the video image will revert back to normal.

Screen Sharing

One of the most powerful features of iChat is Screen Sharing. The term "Screen Sharing" is sort of a misnomer, though, and it certainly sells short what the feature does. It's not just that you can let a buddy see your screen or see a buddy's screen; you can actually control the other person's computer.

It's important to keep in mind, however, that when you share your screen with someone in iChat, you are giving them *full access* to your computer. They can open and play with all

SMS Messages

In addition to various forms of chatting, you can send SMS messages (Short Message Service, aka a text message). Click File and Send SMS. When the window appears, select your name from the From menu, enter the mobile phone number to which you want to send the text, and click OK. When the chat window appears, you can chat (well, type) like you normally would. Bear in mind that a conversation in this format will not feature rapid back-and-forth messages; it takes awhile for the text message to reach the recipient, for her to type a response, and for the message to get back to you. Further, remember that text messaging rates will apply for her phone, so be considerate. ▮

your files, folders, and settings and can launch and manipulate applications. It's just as if they take over your mouse and keyboard. Therefore, only share your screen with someone you trust completely.

That said, Screen Sharing is an amazing tool. It makes having someone troubleshoot your computer (or enabling you to troubleshoot someone else's computer) from far away incredibly easy. It's also really helpful if you want to show a friend how to use a particular program or perform a certain action on the computer. When you begin Screen Sharing, iChat automatically initiates an audio chat, too.

To start Screen Sharing, select a friend and click the icon with two windows on it (at the bottom of the AIM Buddy List screen). Select Share My Screen With [name] or Ask To Share [name]'s Screen. You can also click File, click New Chat, enter the person's name, and use the Type drop-down menu to select Share My Screen (inferring that you will share it with someone) or Share [Name]'s Screen (meaning you want a friend to share his screen with you). When your buddy accepts your invitation, you're good to go.

Note that although iChat is an easy-to-use yet powerful application, it's not perfect. One thing to watch out for is the video quality when you're trying to share a document. Granted, the video quality is affected by other factors—namely, the Web cam's capabilities and the speed of your network, which affects every video chat client—but it's no less frustrating if the text of the document you're sharing with a buddy is unreadable. If you're video chatting with multiple people at once, forget being able to read anything on that document at all—the video image is tilted in such a way that you can't see the document very well. When you share photos and video, they're not very clear, either.

Still, for a free built-in program, iChat is a terrific application with excellent features. ▮▮

BY SETH COLANER

Web Tips
Enhance Your Time Online

Free Online Photo Editing

Problem: I want to edit my photos, but I don't want to devote a lot of money and drive space to photo-editing software.

Solution: To get the benefits of photo-editing software without having to purchase it or download it to your computer, check out Thumba (www.thumba .net). Once you open an image stored on your computer, you can edit it with tools, such as a red-eye remover, grayscale brush, blur brush, and a sharpen brush. Additionally, you can crop,

Thumba (www.thumba.net) is a free photo-editing Web tool that you don't have to download to your computer.

resize, and rotate the image. Thumba will even let you add special effects to your photos. Once you're done editing your photo, save a copy of the edited image to your computer by clicking the Get Started tab and selecting Save.

Find Laptop-Friendly Cafés

Problem: I like to work in public places, such as cafés, but I have a hard time finding establishments that offer free Wi-Fi and power outlets for my laptop.

Solution: Finding a café with free Wi-Fi, several power outlets, and a good cup of coffee can seem like hunting for the Holy Grail. At Laptopfriendlycafes.com, you can search the database to find a spot with all three in cities around the world. To find local cafés, point your browser to laptopfriendly cafes.com, enter your city or ZIP code in the Search box, and then click Go. You can also browse locations by city with the drop-down box under Browse By City. Laptopfriendlycafes.com also lets you add locations,

so you can submit your favorite location or the café you own by clicking the Submit A Café button at the top of the Laptopfriendly-cafes.com home page.

No Time For Shopping

Problem: I like to shop the online sales offered by retail stores, but it's too time-consuming to go to several online retail sites and search for good deals.

Solution: You need an online personal shopper. Shop It To

Me (www.shopittome.com) will aggregate the sales from your favorite stores, put all the deals in an email, and send it to you once or more per week. To sign up, just go to the Shop It To Me Web site and select what type of items you are looking for (such as women's clothes, shoes, and bags or men's, girl's, or boy's clothes). Next, check the box next to as many of your favorite retailers as you want. Then, select the types of items you are interested in, your sizes, and your personal information. Once you've created your (free) account, all you have to do is wait for Shop It To Me to deliver the sales to your email inbox. You can close your account at any time to stop receiving emails from Shop It To Me.

Meetings Made Easy

Problem: I am in charge of a neighborhood group, and I need help streamlining the communication between group members before each meeting.

Solution: A meeting management application can help keep all of your group members on the same page. MeetWithAgenda (www .meetwithagenda.com) lets you create an online agenda for your meetings so everyone knows what will be addressed. MeetWithAgenda generates a URL leading to

the agenda that you can share with meeting participants. Meeting members can follow the link to find details and confirm that they'll attend. You can even assign participants to items on the agenda. Additionally, MeetWithAgenda lets you suggest multiple meeting dates, so you can be sure to get as many participants at the meeting as possible.

Memorize This

Problem: I have a long speech to memorize, but I'm not sure how to go about doing it.

Solution: Whether you're preparing to present at a big conference or hoping to memorize the speech you've written for your daughter's wedding, Memorize Now (www.memorizenow.com) can help. Paste the text you want to memorize into the text box and click Add. Click Memorize, and you can choose to have Memorize Now show you the full text or just the first letter of every word in the document to help jog your memory after you've memorized most of it. You can also hide the document and then make it appear again to check how you did. As you become more proficient, you can click the Right arrow button to have the document blank out more and more words to help push you to remember what it says. For hints, roll your cursor over the blank spots, and it will show you the first letter of the word. ▐▌

BY TESSA WARNER BRENEMAN

Top 5 Reasons
To Subscribe To *Smart Computing*

If you're already a subscriber, you know *Smart Computing* has a lot to offer. If you're still buying from the newsstand, what are you waiting for? Subscribe today to take advantage of these great subscriber benefits:

1 SmartPeople Computer Support—Tech support available to subscribers only.

2 Plain-English editorial.

3 Full access to all Sandhills publications for the price of one.

4 Unlimited access to SmartComputing.com, including our extensive online Tech Support Center and interactive Q&A Board. Plus, new Web-only content every month.

5 Savings of 59% off the newsstand price.

12 Issues Just $29*

To subscribe, visit www.SmartComputing.com
Or, call us at (800) 733-3809 and mention code 14108

*USD $37 to Canada, $69 International

Privacy Policy

Smart Computing does not sell, trade, or release any personal information about our subscribers.

Find It Online
America's National Pastime

MLB.com
www.mlb.com

The initial visit to the official site of Major League Baseball can be overwhelming, but in a good way, as seemingly anything you want to know about the modern game is available at the online home of America's national pastime. Give yourself a few minutes to digest everything up for grabs, and you'll discover schedules and standings, links to the official sites of every major and minor league team, scores, statistics, audio and video clips, fantasy leagues, tickets and official MLB merchandise for sale, and current news as covered by beat writers from all 30 major league squads. You'll also find scads of blogs from a divergent list of players, broadcasters, and celebrities; on-demand games for viewing and listening; and, for mobile users, applications for BlackBerry, Android, and iPhone devices. For everyone, there are baseball cards and other items up for auction, and you'll get an interesting look at how technology has and will continue to alter the fan's experience at the ballpark.

National Baseball Hall Of Fame
community.baseballhall.org

Any baseball fan worth her salt owes it to herself to make a pilgrimage at least once in her life to the holy shrine that is the National Baseball Hall of Fame and Museum in Cooperstown, N.Y. This online home to the Hall, however, may be the next best thing to being there. Visitors will get a taste of the Hall's more than 35,000 artifacts, including sections devoted to Babe Ruth, Hank Aaron, women in baseball, baseball in the movies, and, of course, baseball cards. The Hall's online exhibit also offers a nostalgia-filled trip documenting baseball uniforms through the years via a searchable database, a moving tribute to players who put their careers on hold to serve in World War II, and an interactive list of members of the exclusive 3,000-hit club.
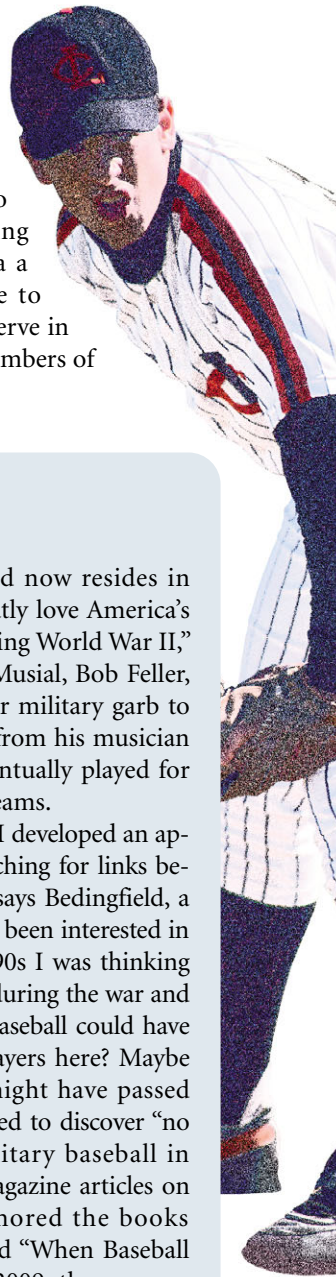
That's NEWS To You

Finding the appropriate online group to match your interests can be a monumental task. So each month, we scour the Internet to bring you the friendliest forums and most interesting bloggers the Web has to offer. This month, we focus on a blog about our national pastime.

Baseball In Wartime Blog
baseballinwartime.blogspot.com

Don't let the fact that Gary Bedingfield was born in Great Britain and now resides in Glasgow, Scotland, fool you into believing he doesn't understand and greatly love America's game. Dedicated to "baseball players who served with the armed forces during World War II," Baseball In Wartime Blog pays tribute to the likes of Ted Williams, Stan Musial, Bob Feller, Phil Rizzuto, Joe DiMaggio, and others who traded a baseball uniform for military garb to serve their country during wartime. Bedingfield, who learned of baseball from his musician father, who "toured the American Air Force bases" in the early 1960s, eventually played for Great Britain's national and Olympic teams.

"As my playing days came to an end, I developed an appetite for the history of the game, searching for links between baseball and my own country," says Bedingfield, a Los Angeles Dodgers fan. "I have always been interested in WWII history, and it was in the mid-90s I was thinking about American servicemen in Britain during the war and wondering what their affiliation with baseball could have been. Were there any minor league players here? Maybe even a major league player or two might have passed through Britain." Bedingfield was amazed to discover "no one had written about overseas military baseball in WWII." Beyond penning numerous magazine articles on the topic, Bedingfield has also authored the books "Baseball In World War II Europe" and "When Baseball Went To War." Launched in October 2009, the purpose of Baseball In Wartime Blog "is to keep news of WWII baseball alive," he says.

Compiled by Blaine Flamig
Illustrated by Lori Garris

MiLB.com

www.milb.com

The online destination of Minor League Baseball looks nearly identical to that of MLB.com right down to team schedules, stats, games on demand, and more. What's different at MiLB.com is the focus on players from the Rookie, Class A, Class A Advanced, Double-A, and Triple-A squads. In addition to comprehensive coverage on minor league teams, other noteworthy features include a list of the Top 50 MLB prospects and blogs from actual prospects looking to make it to "the show."

Ballparks Of Baseball

www.ballparksofbaseball.com

If baseball is a religion (and it is for a large group of fans), then the baseball park with its fresh cut grass, sunshine, and peanuts is the temple at which the devotees gather to worship. Aesthetically, Ballparks of Baseball isn't quite as glamorous as the old and new stadiums the site features in photos, videos, and text, but the site is exhaustively comprehensive and well worth a visit. Beyond access to stadium seating charts, Ballparks of Baseball provides information for driving directions, parking, and nearby hotels; a wonderful travel guide; and a RoadTrip Guide that aims to make your ballpark-inspired journey a smooth one.

Baseball Almanac

www.baseball-almanac.com

Baseball Almanac is a towering achievement that essentially serves as an "interactive baseball encyclopedia filled with more than 300,000 pages of in-depth baseball facts, original baseball research, and baseball statistics not found anywhere on the Internet." In addition to charting nearly any and every baseball-related statistic, award, and record, the site also chronicles team histories, managers, umpires, obituaries, quotes, baseball cards, movies, books, and official rules of the game. Further, Baseball Almanac even offers a guide to scoring games, along with free downloadable scorecards, for those keeping score at home.

Negro League Baseball Players Association

www.nlbpa.com

Dive into the story of Andrew "Rube" Foster, the "father of black baseball," or Effa Manley, a female team manager of the Newark Dodgers in the 1930s and 1940s, and you'll immediately begin to sense the immense pride and talent on display at the Negro League Baseball Players Association Web site. Overflowing with captivating photos, artifacts, and memorabilia deeply historical in nature, the site manages to detail everything from the Negro League's early players to the stadiums that they played in, all with an approach that runs long on facts but also on appreciated images that convey the history being applauded here.

Share The Wares

Some of the best apples in the online orchard are the free (or free to try) programs available for download. Each month, we feature highlights from our pickings. This month, we delve into a program that can track an entire career's worth of stats.

Baseball Memories 3.10

www.lazydogsoftware.com

For posterity purposes alone, charting a son's or daughter's every plate appearance, pitch thrown, stolen base, putout, error, and other statistics over the course of a game, season, and career is a worthwhile endeavor. Without some help from a diligent assistant, however, such an endeavor also represents a monumental undertaking. Enter Lazy Dog Software's Baseball Memories 3.10, a straightforward, easy-to-use program that takes the heavy lifting out of crunching scads of baseball-related numbers while simultaneously putting several useful and creative tools at your fingertips to make sense of those numbers.

Baseball Memories is compatible with Windows 95 through Windows 7. The program's three most beneficial tools are arguably Games, Stats, and Spray. Games lets you plug in all the hits, runs, errors, earned runs, strikeouts, and other pertinent information regarding an unlimited number of players, teams, games, and seasons. Stats compiles that data into readable game, season, and career charts and graphs. Spray lets you plot singles, doubles, fly outs, sacrifice flies, home runs, and other plate-appearance results on a bat spray chart that provides a quick, visual reference of a hitter's tendencies and results over a season or career.

A fully functional version of Baseball Memories is free to try, although the free version limits the amount of data you can save in the program. A downloadable version is $19.99, while a CD version is $29.99. To download the free or paid version, click the Sales link from the Lazy Dog Software home page and then click Baseball Memories. Online tutorials for using the program are also available at the site.
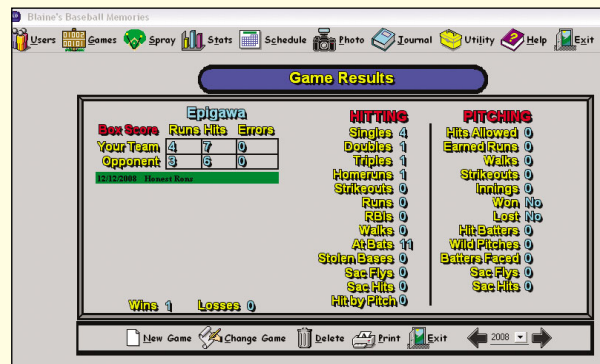
Baseball Memories 3.10 is an easy-to-use method for visually and textually charting the statistics of a player or team over the course of a game, season, or career.

Google
More Than A Search Engine
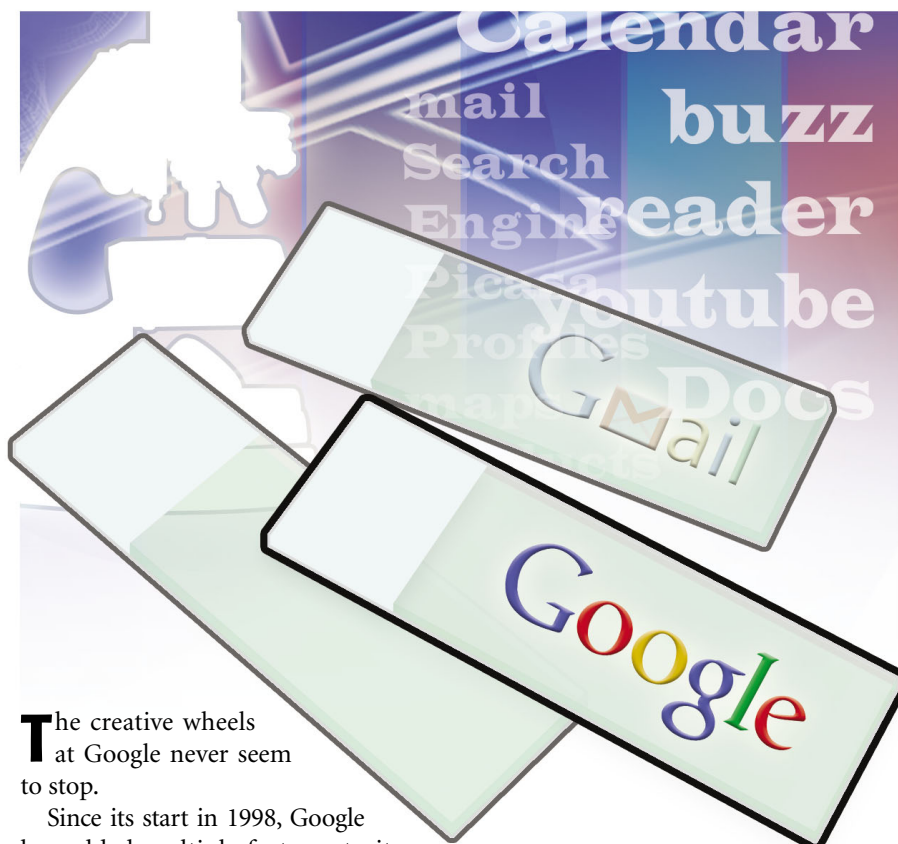
The creative wheels at Google never seem to stop.

Since its start in 1998, Google has added multiple features to its search engine in order to help people harness the Internet and find the information they need quickly and efficiently. Although its search capabilities are still the core of many projects and products, Google has also engineered several online services and tools, its own Web browser (Chrome), numerous mobile applications, and its own mobile operating system (Android). There are even plans to launch an operating system for computers.

Thanks to the creative and inventive atmosphere Google has created at its headquarters, the engineers and developers working on Google products continue to improve its current programs, and more useful applications are always on the horizon. According to Jake Hubert, public affairs specialist

for Google, there were 550 improvements made to Google's search engine alone in 2009.

To access many of the Google products, however, you must sign up for a free Google account. You can do this by clicking the Sign In link at the top-right corner on the Google home page (www.google.com). Below the box for account information is a link to create a new Google account. After you click that link, fill in the requested information on the next screen. Creating a Google account does not require a

Google email address. You can use your current address. However, if you want to use Google's email client, Gmail, you will need to sign up for a Gmail account via the Gmail home page (mail.google.com).

Access Anything & Everything

Google's home page has a simple design, with the logo and query box in front of a white background. Just enter your query (or keyword) into the box and click the Google Search button. You can click the I'm Feeling Lucky button if you think the first Web site to appear in the search results will be your desired destination. For example, if you want to go to a popular retail store's Web site and the name of the store is your keyword, clicking the I'm Feeling Lucky button will likely take you directly to the site you are looking for.

Because a Web search result can yield many more sites than you have time to sort through, Google's Web search offers several features to help you narrow down the sites that appeared in your first query. For example, if your keywords are "domestic rabbits," Google's Web search results could include a variety of information from different sources, including Web sites, news stories, images, and books, all dedicated to domestic rabbits. To look for more specific results, click Show Options. By clicking any of the links that appear, you can filter the results to deliver a smaller pool of choices for your research.

The newest link in Google's search options is Social Search. When you click the Social link, your results will show content posted by your friends and family on sharing sites, such as social networking accounts, photo sharing sites, and blogs. To use this feature,

Social Search is a new feature of Google's Web search, and it offers results from your social circle.

Results from your social circle for **seattle** - BETA - My social circle - My social content
1078 photos - 17 contacts - Last photo 3 months ago

however, you need to sign up for a Google Profile (www.google.com/profiles) and provide information about yourself, including the social networking sites, blogs, and other sites that you use. Then, your friends and family can gather results of their queries from your sites, as well. Your social circle is derived from the contacts list you manage through your profile. There are links to create groups under the Contact Info tab.

You can also tailor your Web search by using the links at the top of the Google home page. For example, you can find video and image results by clicking the Images and Videos links. The Maps link will take you to Google Maps (maps.google.com), where you can search for locations all around the world and get driving, walking, and public transit directions to and from almost anywhere. When you enter a location, such as an address or business name, Google Maps will show you the bird's-eye view via street map or a satellite photo. You can also search for points of interest (hotels, restaurants, gas stations, etc.) nearby. If you'd rather see what your destination looks like from the street, click the pinpoint icon on the map and select the Street View link (if available). This can help you recognize a house or a building you are visiting for the first time as you're driving up to it.

The News link on Google's home page will take you to the Google News page (www.google.com/news). Here, you will find the top stories of the day from a variety of popular online news sources. You can click the links to read stories, or you can search Google's bank of new and archived articles. If you

choose to make it your daily stop for the latest headlines, Google News lets you add sections for additional topics you are interested in (such as computer security, social networking, and more) by clicking the Add A Section link located at the top-right side of the page. Right next to that link is the Edit This Page link, which lets you change the layout by adding local news. To add local news, insert your city, state, and ZIP code into

Google Maps provides you with images and directions for locations all around the world.

You can search for news articles or catch the daily headlines at Google News.

the provided text box. Additionally, the Recommended For You section shows stories that might interest you based on previous search queries.

If you want to research or purchase a specific product online, click the Shopping link at the top of the Google home page. This will take you to the

Google Product Search page (www.google.com/products). Your query can be general (such as "running shoes") or it can be specific (such as "Nike Air Max men's running shoes"). Once you click the Search Products button, you will get a list of vendors that sell the item as well as the price of the item so you can compare.

Useful Tools

In addition to its search features, Google has a variety of online tools to streamline your communication and productivity while also letting you share files, such as photos and spreadsheets, with your contacts. All of these services are free, and most of them only require a Google account.

Google Docs (docs.google.com) is an online productivity suite that lets you create word processing, presentation, and spreadsheet files. With Google Docs, you can access your files from any Web browser, eliminating the need to carry around a thumb drive or other portable storage device. Plus, you get many of the same features offered by proprietary productivity suites, such as Microsoft Office. You can also create shared files and folders so a group of people can work on a document, such as a guest list for a wedding. Additionally, Google Docs supports common word processing, presentation, and spreadsheet file formats, so you can upload, store, and edit documents created in desktop productivity suite applications. Google Docs also lets you upload and store Adobe PDF (Portable Document Format) files.

Google Calendar (calendar.google.com) is another Web application that helps you stay productive and organized. It lets you add alerts (via email or text message sent to your phone), and you can synchronize your Google Calendar with other desktop application calendars, including Microsoft Outlook, Apple iCal, or Mozilla Sunbird. Depending on the type of phone you have, you might also be able to sync your Google Calendar with your mobile phone calendar application. Like with Google Docs, you can create public or shared calendars so members of a group, such as a book club, can all have access to events, such as meetings and local book signings.

Picasa (picasa.google.com) and Picasa Web Albums (picasaweb.google.com) together help you store, organize, share, and edit your digital photos. In addition to organizing your photos into Web albums, you can create slideshows, tag the location and date of each photo and album, and share your photo creations via email. Picasa's desktop application lets you crop photos, eliminate red-eye, and adjust the contrast and color of photos. You can also add effects, including film grain, glow, and soft focus. Picasa and Picasa Web also let you tag faces in photos, so you can quickly search for photos of specific friends and family members.

To download the Picasa 3.6 desktop application, point your browser to the Picasa Web site and then click Download Picasa 3.6. Follow the on-screen prompts to finish the download and import your photos.

Gmail is Google's Web email application, but it offers much more than just email. It has a built-in instant messaging client so you can chat (via text, video, or voice) with friends and family, and it places email chains into a group (called conversations) to help you keep your inbox more

Did You Know…

YouTube (www.youtube.com), the popular online video sharing site, is owned and operated by Google. YouTube lets you upload your own home videos to share with the world (or with up to 25 friends in Private Mode). It's an easy way to share videos of birthday parties, weddings, or family reunions with those who were unable to attend. You must have either a YouTube or Google account to upload a video, but it's relatively easily to do so. Click the yellow Upload button in the top-right corner of the main page. Next, click the Upload Video button to choose a video from your computer to upload. Once the video is chosen, you can add a title, description, category, and a tag. You can tag a video with keywords that people might be searching for. Once you're finished, click the Save Changes button. To view your videos, click the My Videos link under your account name. This lets you edit, delete, or promote your video, as well as add captions or annotations. ∎

Google Docs lets you create and store word processing, presentation, and spreadsheet files.

organized. You can also label and filter emails.

Gmail also integrates with other Google Web applications. For example, when an email includes an address, Google provides you with a link to Google Maps so you can look up directions more quickly. Additionally, if the email has an attachment, you can open it using Google Docs and save it to one of your Google Docs folders.

Google has also recently integrated Google Buzz (buzz.google.com) into Gmail. Google Buzz lets you keep in touch with Gmail contacts by sharing links to videos, photos, articles, blog

entries, and anything else you find interesting on the Web. If you have accounts through other sharing sites, such as Twitter, Flickr, or Picasa, you can choose to add that information to your Google Buzz account, as well.

You can also post status updates, which consist of a short sentence or two about what's on your mind at that given moment. With Google Buzz, you can share things with all your Buzz connections or just a few, and you can comment on what your friends and family are buzzing about.

So Much More

Google has even more search features and Web applications, including Google Sites (lets you create Web sites), Google Reader (to keep track of new posts on your favorite sites and blogs), and Google Talk (an instant messenger client). To check out all that Google has to offer, point your browser to Google's home page and click the More link at the top of the page. Scroll down the list and then click Even More. With so many free services, you can try out Google's products risk-free and see if they can help you be more productive and efficient on the Web. ∎

BY TESSA WARNER BRENEMAN

Cruising In The Cloud

It has been suggested on occasion that I have my head up in the clouds. Sometimes the "in the clouds" part varies, but the suggestion refers to having unrealistic, impractical, or even whimsical ideas. For many years, cloud computing resided in this fanciful category.

By technical definition, "cloud computing" refers to the delivery of hosted services over the Internet. Setting highfalutin definitions aside, you can't go wrong if you think of cloud computing as Web-based computing. The term itself was inspired by the cloud symbol that is often used to represent the Internet in flow charts and diagrams.

Cloud computing is the future of computing because it provides access to common applications and services without the need to download or install any software. Today, most common computing tasks, such as email, visiting Web sites, games, word processing, accounting, bill paying, data storage, and backups, can all be accomplished in the cloud.

This is a big deal in part because it allows us to use any type of computer or Internet access device. Desktop computer, laptop, netbook, BlackBerry, cell phone, iPad—if the device can access the Internet, the cloud is ready to serve you.

But it's not just the fact that it provides freedom of device choice that makes cloud computing so exciting; it also provides freedom of operating system choice. The cloud doesn't care if you're using Windows, Mac OS X, or my personal favorite, Ubuntu (Linux), anymore than your car cares what kind of shoes you're wearing when you get behind the wheel.

Antivirus protection is imperative for all Windows users, and that, too, is edging toward the cloud. I recently tested Panda's free Cloud Antivirus (www.cloudantivirus.com). It's still a work in progress, but it is impressive, particularly to an impressionable young thing like myself. (Be nice!)

Rather than using my PC's processing power, this Web-based application sends data about potentially malicious files to Panda's servers for analysis.

There are no virus signatures to download and nothing to keep updated. Panda accurately describes it as: "The first antivirus without an update button." I think I'm in love.

For your word processing needs, if you haven't yet ventured into the cloud, Google Docs (www.google.com/docs) is an excellent place to start. If you already have a Gmail account (www.gmail.com), you will use the same login information, which streamlines the process. Take the Google Docs tour at tinyurl.com/2no3z2.

Google is positioning itself to be a dominant player in the cloud computing arena. Its speedy Chrome browser (www.google.com/chrome) is excellent. It pains me to say it, but it is a truly viable alternative to my beloved Firefox. And Google is just getting started. Google's Chrome OS (operating system) (tinyurl.com/yjph3wb) is currently in the works. It's an OS that, for the first time, integrates browser, operating system, and access to data. I get woozy just thinking about it.

From a user perspective, the Chrome OS looks and feels like browsing with the Chrome browser. Google believes an operating system should be invisible and quietly function in the background. Amen! It also believes that the browser is the starting point for most computing tasks. I agree, and I'm sure Google is very appreciative of my concurrence. That being the case, if you can use a browser, you are ready to use Chrome OS when it makes its official debut later this year.

So what else can we do in the cloud, in addition to visiting Web sites, processing email, downloading files, playing music, word processing, and creating spreadsheets? How about photo editing? I'm glad you asked.

Google's Picasa (picasa.google.com) is adequate for basic photo editing, but if you're beginning to suffer from GFS (Google Fatigue Syndrome), Photoshop.com offers all the editing tools any Ansel Adams wannabe is likely to need. For video editing, JayCut.com offers a reliable Web-based video editor with no upload limitation. Both are free.

For cloud-based financial management, take a look at Mint.com. For online backups, Mozy.com ($54.45 per year) or Carbonite.com ($54.95 per year) are wildly popular. Does the thought of your important data residing in the cloud cause Data Separation Anxiety? If so, Gladinet.com (Starter Edition is free) will establish a link from your Desktop to your online storage, creating the illusion that your Web-based data resides on a local hard drive, thus assuaging your concerns. Ahhh . . .

The bottom line on all this is that we are entering an exciting, transformational era for computing and Internet technology. While the concept of cloud computing may at times seem nebulous, you can rest assured that it will ultimately reign supreme. ❚
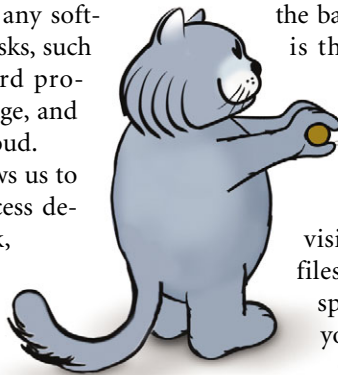
A Clean PC Is A Happy PC

The Importance Of Proper Computer Hygiene

Contents

Every neighborhood has that one guy who spends several hours every weekend painstakingly washing, waxing, and polishing his coveted car, truck, or motorcycle in the driveway to keep it looking like new. Ah, if only more of us gave our PCs the same attention. The fact is many of us are more devoted to the upkeep of our cars, jewelry, golf clubs, yards, gardens, and other possessions than our PCs—despite the considerable financial investment a computer can represent and the heavy reliance we place on them for work and personal purposes.

On one hand, it's understandable that some owners rarely pay heed to the physical well-being of their computer systems. Some people simply aren't aware of the benefits of periodically giving a PC's interior and exterior a good cleansing. Others avoid getting anywhere near the inside of a PC in fear of touching the wrong part and doing irreversible damage. These factors carry over to virtually tidying up Windows, hard drives, applications, and files, all of which can detrimentally affect system performance if left unchecked.

On the other hand, even if the idea of tinkering with a PC paralyzes you with anxiety, there's too much to gain from consistent PC maintenance not to do so. By doing a bit of dusting periodically, for example, you can easily extend the life of your PC's components. Similarly, by occasionally running a program to detect and remove duplicate files, you can regain hard drive space and add back some pep to system performance. What's important to note is that even if you've neglected your PC's cleanliness up to now, it's not too late for a sprucing up, and the improvements you see may just surprise you.

The Need To Clean

Establishing a consistent PC-cleaning regimen is vital for many reasons, but focus on these four for now. One, the better shape you keep your PC in, the less likely that hardware and software errors will pop up. That means less time seeking out tech support later on and less money spent replacing prematurely worn out components. Two, regularly cleaning your PC's vents, fans, filters, and other components will promote better airflow, meaning less chance of heat-related damage to components. Three, using good maintenance practices, such as removing unnecessary files and controlling programs that start at launch, will make you more efficient and your PC operate faster. Four, regular cleanings create a healthier and more aesthetically pleasing workspace. Consider the countless germs a shared keyboard and mouse attract if you need proof.

In the following articles, you'll find explanations, tips, procedures, and products all geared toward helping establish good PC cleaning and maintenance practices. In "Windows Washing" (page 55), for example, we walk you through basic software-related cleaning, organization, and maintenance tips that will enhance system performance, including deleting unused programs, cleaning up the Desktop, and paring down the Start menu. In "Bust The Dust" (page 57), we detail how, armed with a can of compressed air and a damp rag, you can banish most of the dust and debris accumulating on your PC's vents, filters, and fans. We also spell out how to organize a PC's internal cables to create better airflow and reduce the chances of heat-related damage.

In "Keep Germs At Bay" (page 60), we explore the benefits of cleaning such germ-riddled peripherals as keyboards and the products available to help do so. On page 62, we spell out the special cleaning considerations that laptop owners need to know about, while in "Cable Wrangling" (page 64), we'll detail how to corral the unseemly cables and power and data cords snaking around your workspace.

The benefits of giving a PC a good shine and polish speak for themselves. Beyond adding months and possibly years to the system's life, a PC will typically run faster while simultaneously making you better organized and more efficient. Nearly as important as actually cleaning a PC, however, is establishing a regular cleaning schedule. If needed, set a recurring event in your favorite calendar application to remind yourself every three months or so that it's time for a PC cleaning. A good cleaning should only take about an hour, and your system will thank you with faster, smoother performance for the effort. ▋

BY BLAINE FLAMIG

Windows Washing

A Little Spring Cleaning Makes Your PC Shine

It happens to everyone who uses a PC at some point: You start with a fresh copy of Windows that boots quickly, responds snappily, and runs great, but eventually things change. You leave the computer on all the time because Windows takes several minutes to boot. Programs take forever to load and generate many errors. You can't see the Desktop because of all the files and folders scattered across it. Time for a new computer? Not by a long shot. There's plenty you can do to clean things up and get your PC running smoothly again, and most of the tips supplied here won't cost you anything other than a bit of time.

Performance Tweaks

Nothing's more annoying than a PC that runs in fits and starts, responding to input when it's ready instead of when you are. Try the following tips to get your computer back up-to-speed.

Eliminate unnecessary startup programs. A startup program is one that loads automatically each time you start Windows. Some are helpful, but often, many useless startup programs accumulate and steal resources from programs that are useful, bogging down the computer. Some are easy to find and disable, but many hide themselves, and it often is difficult to determine which startup programs are necessary, meaning it is best to use a utility called a startup manager to get rid of them.

Some startup managers are extremely thorough but difficult for beginners to use. CodeStuff Starter (free; tinyurl.com/ylnys7s) offers a good mix of power and accessibility. When you get to the site, click the StarterSetup.zip link, download the file, double-click it, and then double-click StarterSetup.exe. Double-click the CodeStuff Starter icon on the Desktop to launch the software. The interface is a bit daunting, but just focus on the Startups tab. All the entries in the right pane load when Windows boots, and you can disable them by removing checks from the boxes next to them. If you don't know what something is, right-click its name, expand the Search Internet folder, and click one of the Google or Sysinfo.org links to find out more information. If you accidentally disable something you need, restore it by opening the program and checking the box again—this utility does not uninstall software, it just prevents it from loading when Windows boots. Generally, you should never disable something that includes "system32" in the Values entry, as it is likely a critical Windows program.

Uninstall unused programs. Getting rid of useless programs is another good way to cut down on Desktop and program menu clutter. Often, there is an Uninstall option when you click the Start button, expand All Programs (or Programs), and expand the software's folder. If that's not the case, try to remove it via the Control Panel. In Windows 7 and Windows Vista click Start, click Control Panel, and click Uninstall A Program. In Windows XP, click Start, click Control Panel, and click Add Or Remove Programs. Click the entry for the program you wish to uninstall and click Remove.

Update software. All the software on your computer—especially Windows itself—must be updated whenever possible to fix problems, add features, and operate more efficiently. First, check all the programs you use often to see if updaters are available that automatically search for new patches. The Update option is usually found in the program's Help menu. If none is available, check the manufacturer's Web site to see if it offers patches for download, and apply the patches according to the manufacturer's instructions.

For Windows, use Windows Update. In Win7 and WinXP click Start, All Programs, and Windows Update. In Vista click Start, Programs, and click Windows Update. Regardless of the version of Windows you use, updates are divided into Important and Optional categories, and you should always apply Important updates.

Use leaner anti-malware. Earlier, we told you to axe all unnecessary startup software, but anti-malware (including antivirus, antispam, and antispyware) is a must-have. Not all anti-malware software is alike, however, and some products use far more system resources than others, slowing Windows.

Microsoft Security Essentials (free; www.microsoft.com/security_essentials) does a terrific job of catching incoming malware before it hits your computer, is equally adept at scanning for existing malware, and is easy to use. It also automatically updates itself, which is key for keeping new malware from infecting your PC. Just be sure to remove any existing antivirus program from your computer before installing it. Antispyware programs can play nicely on the same computer, but multiple antivirus products running on the same machine wreak havoc.

Update drivers. Drivers are software that operate like language translators, letting the PC's various hardware components communicate with Windows. Much like software patches, new drivers fix bugs that cause errors, sometimes make hardware work faster, and may add useful features. It is important to keep all your drivers updated so inefficient hardware doesn't hobble Windows. Check the manufacturers' Web sites for all your hardware to see if new drivers are available, and follow any driver removal instructions they may provide so the new driver doesn't conflict with the old one.

While you're at the manufacturers' Web sites, also look for firmware updates. These reprogram a hardware device's on-board memory and can have a dramatic impact on performance, but installing them is a little more risky than installing drivers. If something goes wrong, it might permanently garble the hardware's memory storage area, rendering the hardware useless. When searching for firmware, make sure it's for the precise make and model as the hardware you're updating, and follow the manufacturer's installation steps to the letter.

Defrag the hard drive. Save this step until you've done all the other tweaks in the "Performance Tweaks" section, as it works best when the drive is as uncluttered as possible.

Files are stored on the hard drive wherever there is available space for them, which often leads to files associated with the same program becoming scattered all over the drive (called fragmentation). This doesn't cause any errors when running the program, but it forces the drive to spend more time seeking files from the same program that aren't located next to one another, slowing things down. Imagine a file cabinet where labeled folders are organized by the date you added or accessed them instead of alphabetically. When tax time rolls around and you go to retrieve your tax folder, it's still there, but you may have to search the entire cabinet to find it. In this scenario, reorganizing the contents of the cabinet alphabetically will save you a lot of time in the future. Similarly, when files on your hard drive become fragmented, you must use a defragmentation (defrag) program to put them in the right order again so the drive can find them quickly.

Windows has a serviceable defrag utility built-in, but you're not limited to it. Several free third-party programs are available online, such as Auslogics Disk Defrag (free; tinyurl.com/5nptew) is fast and easy to configure. Download it, double-click the file to install it, and check the boxes for the drives you want to defrag. (The C: drive is the only one you need to worry about unless you have multiple hard drives.) Expand the Defrag drop-down menu and click Defrag & Optimize. Leave the computer alone until the software is finished doing its thing. The process takes anywhere from minutes to hours, depending on how fragmented your drive is and how much data is stored
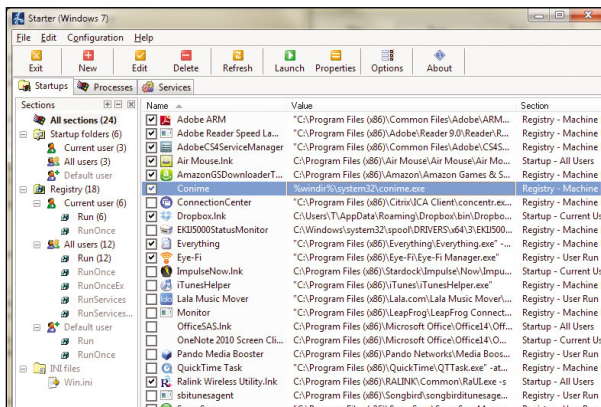
Getting rid of needless startup programs makes Windows load faster and run more smoothly.
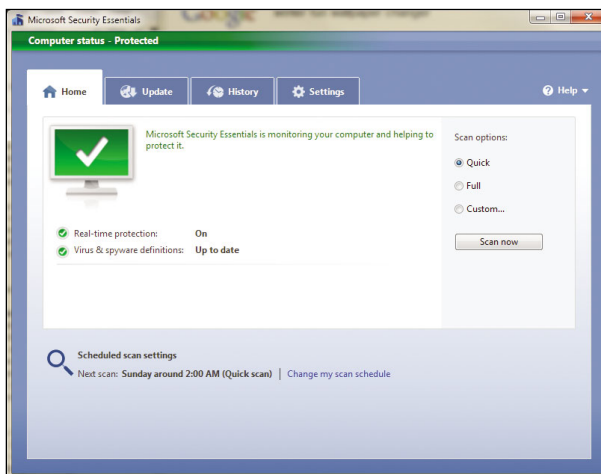
Microsoft Security Essentials is free, light on resources, and easy to install.

on it. Repeat this process every month or so to keep your files organized.

Customization Tips

Does your Desktop look dowdy? Spruce it up using these handy tweaks.

Make a wallpaper slideshow. One of the nice builtin features in Win7 is the ability to create a wallpaper slideshow that automatically cycles the wallpaper using pictures you choose. To enable it, right-click the Desktop, click Personalize, and click Desktop Background. Use the drop-down Pictures Location list to select Pictures Library. By default, all pictures on your computer are selected, so you'll likely want to click Clear All and then use the preview pane to check the boxes next to the pictures you'd like to include in the slideshow. Use the Picture Position drop-down box to select Fill if you want the pictures automatically cropped to fill the entire screen, Fit if you want
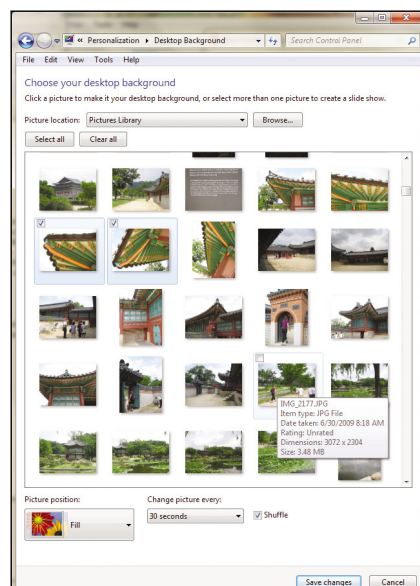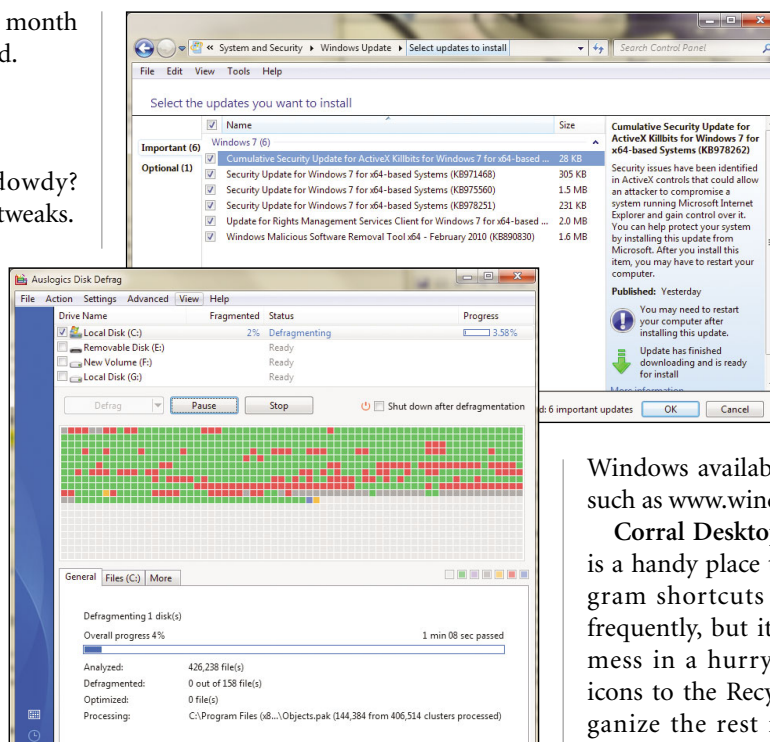
them to fill the screen using letterbox bars, or Stretch if you want them to be resized to fill the screen (which distorts the image). Use the Change Picture Every drop-down box to select how often you want the wallpaper to change, click Shuffle if you want to randomize the pictures, and click Save Changes.

Use different themes. A theme is a total makeover for Windows that changes the appearance of windows and often icons as well. Changing themes in Win7 is as easy as right-clicking the Desktop, clicking Personalize, and clicking one of the included themes. You also can click the Get More Themes Online button to grab additional themes, or modify an existing theme and click Save Theme to customize the look of Windows.

In Vista, right-click the Desktop, click Personalize, and click Theme. In WinXP, right-click the Desktop, click Properties, and select the Themes tab. Use the drop-down Theme list to select one or click More Themes Online and browse additional themes available for

download. You can also find new themes for all versions of Windows available at many Web sites such as www.wincustomize.com.

Corral Desktop icons. The Desktop is a handy place to keep files and program shortcuts that you work with frequently, but it becomes a cluttered mess in a hurry. Move unnecessary icons to the Recycle Bin and then organize the rest in Win7 by pinning them to the Taskbar. You can drag program icons onto the Taskbar to pin them there and launch them with a single click of your mouse. You can also drag icons into the Windows Explorer folder on the Taskbar to pin them to that; if you want to access the icons in the future, right-click the Windows Explorer folder and click the icon on the jumplist that appears. The Windows Explorer folder also maintains a list of frequently accessed files and folders that you can open from the jumplist.

WinXP and Vista don't have Win7's fancy Taskbar so we recommend putting related Desktop icons in folders (Work, Games, Utilities, etc.) and then making those folders accessible with a single click from the Taskbar. To do this, right-click an empty area of the Taskbar, expand Toolbars, and click New Toolbar. Select the folder you wish to add and click OK. It appears on the Taskbar, and you can click it to expand the folder and access its contents from a list instead of by hunting through scattered icons. ∎

Keep Windows updated to avoid errors and slowdowns.

Defragging a hard drive reorganizes the data on it so Windows can access the data more quickly.

Why settle for one Desktop wallpaper when your PC can cycle through as many as you want as often as you want?

BY TRACY BAKER

Bust The Dust

Clean Sweep Your PC

Caring for your PC means using a holistic approach, performing maintenance tasks on both the software and the hardware. We know it's unwise to boot up a computer everyday without protecting your operating system from outside influences, such as malware and Trojan horses. Similarly, you can't expect to turn on your PC day after day without it attracting dirt, grime, and dust. Dust cakes on vents, fans gather various particles, and internal components collect all of the above over time. There are plenty of cleaning habits you can start today that will help you maintain the efficiency and reliability of your computer, so don't hesitate to jump right in and bust some dust.

On The Outside

All electronics gather dust over time, and PCs are no exception. If you haven't examined your PC in the last few months or, well, ever, you'll probably find that a layer of dust has taken up residence on the case. Dust particles and other debris, such as fibers and hair, can clog the flow of air through the interior of your PC, thus causing a potentially hazardous scenario in which your internal components may overheat and fail. Specifically, dirt and dust act as insulators, blocking ventilation holes and fans. If your system happens to shut down as a result of disrepair, data on your hard drive may corrupt.

But, don't be discouraged if you're behind on your cleaning schedule because it won't take very long to redeem your PC (and peripherals) to its shiny, just-out-of-the-box appearance. It should take you no longer than 30 minutes to complete the cleaning tasks outlined below. And, even though your PC isn't a cheap piece of machinery, cleaning it doesn't have to be expensive because you already store many of the supplies in your home.

Tackle The Tower

The golden rule of PC cleaning preparation is two simple words: shut down. Before you attempt to clean any part of your computer, shut down the entire system (don't just enable Sleep mode) and unplug it as an extra precaution. You'll also want to make sure you've acquired the appropriate materials to clean your case (see our "Cleaning Checklist"), including lint-free towels (preferably new), a can of compressed air, cotton swabs, and rubbing alcohol.

The other precautionary measure you should take is to make sure you're cleaning your PC on a lint-free and static-free surface. Keep the tower

Cleaning the exterior of your PC case isn't much different than wiping down a delicate piece of furniture. Wipe gingerly, but don't miss the crevices.

away from carpet and consider purchasing an antistatic mat. When you're working inside the case, we recommend using an antistatic wrist strap to protect against static discharge. You can stage all of this inside your home, but there's no reason you can't take your PC to the back porch so you can give it a thorough overhaul.

At this point, you're ready to clean your system case. Use a clean, soft, dry cloth and moisten it with rubbing alcohol or a PC-safe cleaning solution. Wipe down the surface of the case, thoroughly removing stains and smudges on all sides. Be aware of any ports or openings that may get wet, particularly when you move to the rear side of the case. You can unplug any cables in the way if necessary. Normally you wouldn't wield the compressed air yet, but if you notice some exceptionally large dust bunnies that have settled on the exterior vents, you can insert the straw-like tube into the compressed air can's spray nozzle and blast away any dust you can see by spraying in short bursts. (*NOTE: If you have dust-related allergies, you might want to don a mouth mask or some safety goggles, just to be safe. Always test the compressed air can by spraying it away from the PC.*)

Journey To The Center

When the outside of your case is sufficiently clean, you can take the next steps toward cleaning the interior of the case panels and components—this involves removing all detachable panels with extra care. Some PC models are "tool-less," meaning you may not need a screwdriver to remove the back panel of the case. Instead, you'll twist off any screws with your fingers. If your PC deconstruction requires a screwdriver (almost universally a Phillips head), gently unscrew every visible screw so that you can easily loosen and detach each panel. Don't hesitate to consult your owners manual to do this in the safest possible way.

If there are hard-to-clean ventilation slots on your PC case, simply dip a cotton swab in rubbing alcohol and go after the especially clingy dust patches.

Use a lint-free cloth any time you're cleaning a PC or peripheral surface so you don't add more dust to the area you're trying to cleanse.

Once you're on the inside, you'll probably notice a significant amount of dust buildup on fan blades, the CPU, and hard drive. With your antistatic wrist strap secured, use the compressed air can to clean every component that appears dirty—you may want to tip the case on its side for better access. Try not to touch or jostle the hardware, so as not to disturb any of the connections. Use a cotton swab (dipped in rubbing alcohol) on grimy corners, nooks, and ventilation holes if the canned air doesn't take care of it.

When you've completed this portion of the cleaning process, double-check your work to ensure that you've finished a comprehensive sweep of the interior and exterior of your case.

Tidy Peripherals

Don't forget to disinfect your computer's input devices. According to Richard Parent, founder and president of CleanPC (cleanpc.com), your keyboard and mouse are more germ-covered than the average toilet seat, so that's all the more reason to clean them at least once a week to once a month (or as often as you like). We'll give you the general guidelines for cleaning these two devices, plus your monitor and printer. A reminder: Turn off your PC and unplug all peripherals from the back panel and any wall outlets.

Keyboard. The most vulnerable area of your keyboard is the space underneath the keys. In this seemingly untouchable region, you'll find crumbs, dirt, residue, and other particles hidden behind each and every key. The goal is to remove as much of this debris as possible without popping any keys out of place or being too hard on the keyboard itself. Your first course of action involves tapping out the dirt by turning the keyboard over and gently

A Velcro cable tie will keep your internal cables from obstructing ventilation inside the case.

shaking out loose crumbs into the trash can or onto a piece of old newspaper. Next, use the compressed air to blow out any dirt you can see between the keys. Now, you can remove the oils and grime from the top of the keyboard; dampen a lint-free towel with designated keyboard cleaner or a safe antibacterial formula and wipe down the entire surface.

Mouse. Next, clean your mouse. Moisten the lint-free cloth with the solution you used on the keyboard and apply it to the bottom of the mouse to clear off the dirt it's collected from swiping over your mouse pad for months (or years). Take a moment to examine the optical lens (or laser tracking shaft for a laser mouse)—if you see any dust, gently blow into the lens window. Next, clean the lens with a cotton-tipped swab. For a mouse with a trackball, you'll twist off the ball cover, which should have arrows indicating the direction you turn the cover, and gently remove the ball. You can use a cotton swab to wipe the interior shaft where the ball rests. Finish cleaning your mouse by wiping the left- and right-click buttons as you pass over the top of the mouse.

Monitor. Because LCDs are sensitive to liquids and harsh fibers, you'll need to be cautious about how you touch and clean the display. You can wipe the edge of the monitor with a standard lint-free cloth; when you're wiping the screen itself, delicately press down as you remove dust. You may want to research—whether you search online or consult your users manual—to determine which cleaning solutions are acceptable for your monitor (monitors differ by model and manufacturer). There are specially formulated cleaners you can use for both plasma TVs and LCDs if you're interested in cleaning all of the flat screens in your home.

Under New Management

When you cleaned the inside of your PC case, you probably noticed a mix of colorful and possibly tangled cables. Don't assume this is the way it should be—some data and power cables may act as a detriment to your system's air flow, which keeps the components cool. If you see cables, you can simply tuck away and maneuver them so they're not blocking the CPU fan or other system fans. Beyond this solution, you can bundle loose cables together with cable ties. Plastic or Velcro ties are recommended—metal twist ties are not appropriate because they can short out electrical components.

Cleaning Day

If you're afraid you may forget to clean your PC case and peripherals regularly, just add it to your monthly cleaning routine. You won't have to

PC Cleaning Safety Precautions & Procedures

Clear away the dust and dirt that's resting in the general area surrounding your PC, so you can clean the hardware in a clean environment.

When cleaning your LCD monitor, do not use your bare fingers but rather a clean lint-free cloth and a liquid cleaner approved for LCDs.

Don't spray any cleaning solutions directly on the computer case (or any part of the PC). Instead, spritz the cleaning cloth and use it to gently wipe away dust.

Don't attempt to disassemble keyboards, printers, or other peripherals to clean the insides. You can easily damage them, and that will almost certainly void the warranty.

Always unplug your PC before cleaning any part of it. It's advisable to unplug the monitor and other peripherals, as well. ∎

Cleaning Checklist

In order to thoroughly clean your computer, you'll need to equip yourself with the appropriate cleaning tools. Take a look at our checklist of cleaning supplies to ensure that you have everything you need before you begin.

- Antistatic wrist strap
- Lint-free towels
- Compressed, canned air
- Cotton swabs
- Rubbing alcohol

attack the nitty-gritty dust and grime inside your computer as frequently, but it never hurts to check inside your case and count the number of dust bunnies that need to go. A clean PC will not only look attractive, but it will also run efficiently and quickly. ▋

BY JOANNA SAFFORD

Keep Germs at Bay

A Clean PC = A Healthier You

Keeping clear of germs involves three basic principles: clean often, use microbe-resistant materials, and avoid contact with potential sources of infection. Antimicrobial and other preventive products fall largely into similar categories. We'll review several types of computing accessories and peripherals, with examples, to help you understand the best way to keep your computer free of real-life viruses as well as bacteria, mold, and spores.

Clean Accessories

Simple cleanliness is the best and easiest way to avoid germs. Keep in mind that most computers and work areas are shared by several people. Even work areas with a single dedicated user can get pretty nasty over time. Manufacturers, of course, recognize an opportunity when they see one and have introduced all sorts of cleaning products targeted at the computer and consumer electronics markets. Some are the same cleaning materials you use in the kitchen, bathroom, or living room. Others are specifically developed for sensitive equipment and hard-to-reach nooks and crannies.

Bacteria and other microbes aren't usually picky about where they live, so there's always a reason to do a quick wipe-down of any shared surface. There are lots of premoistened disinfecting wipes out there, and most will work fine for casual cleaning of keyboards and other peripherals. But for heavy-duty germ-fighting, check out WYPALL Microfiber Cloths from Kimberly-Clark ($19.26 for six; www.newegg.com). They're durable, so they won't break down, and the microfiber won't scratch sensitive surfaces. They're also treated with Microban antimicrobial protection, which breaks down bacteria that the cloths pick up.

For well-rounded attention to your entire system, rely on a complete PC-cleaning kit, such as the Innovera General Purpose PC/Computer Cleaning Kit ($14.79; www.newegg.com). It contains antistatic cleaning fluid, lint-free wipes, a blower brush, a keyboard duster, an optical drive laser cleaner, and a microfiber cloth. It's a good idea to give any PC you spend extended time on a thorough treatment regularly. Not only will you keep germs at bay, but you'll also extend the life of your equipment with good maintenance.

Wipes can't reach everywhere that germs lurk, and you can't always subject every machine to deep cleaning (think hotel lobby computers). That's where a sanitizing UV (ultraviolet) wand comes in. The rechargeable Verilux CleanWave ($69.95; www.verilux.com), for example, is only 20 inches long and 2.5 inches wide. The portable version ($29.95) is just 10 inches long and runs on AA batteries. Simply turn it on and scan away. The "C" ultraviolet subtype, the short wavelength frequency on which such wands operate, disinfects against most known viruses, bacteria, molds, mites, and eggs. You might feel a little conspicuous waving it around in public, but you'll sure feel better knowing that any germs left by the last user have been zapped away.

UV sanitizing wands aren't the only fun and innovative cleaning products out there. Have you ever tried to clean out your keyboard? Sure, turning it
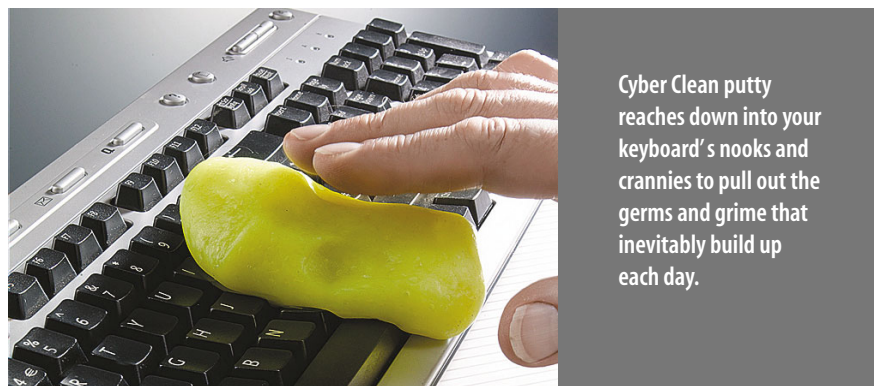
upside down and shaking it will knock a few crumbs loose, but you can always see plenty of suspicious (and possibly infectious) pieces left behind. Enter Cyber Clean Electronics Cleaning Putty ($7.99; www.thinkgeek.com). Squish it into your keyboard or keypad (with the power off) and press it between the keys and into all the cracks. Then lift it off, bringing up all the nasty residue from typing, snacking, and spills. Grime is trapped in the putty, so you can perform the trick over and over.

Antimicrobial Peripherals

Cleaning is a critical part of keeping germs at bay, but wouldn't it also be

Cyber Clean putty reaches down into your keyboard's nooks and crannies to pull out the germs and grime that inevitably build up each day.

good to work on computers and peripherals that were germ-resistant to begin with? Makes sense to us, and product manufacturers offer no shortage of options. Most such products combine antimicrobial ingredients (often including silver) with easy-to-clean materials, on the premise that nonporous surfaces mixed with additives inhibiting bacterial growth are much more effective at keeping out germs than materials having either property alone. There are lots of cool ways that manufacturers are integrating antimicrobial agents with their computing products, as these examples demonstrate.

The No. 1 germ-ridden place in any workspace has to be the keyboard. Anything touched that much, even by a single pair of hands (in contact with all kinds of other things along the way), is a formula for sickness. Add to

that our propensity for eating at the keyboard, and we're just asking for trouble. The Silver Seal antimicrobial keyboard from Seal Shield ($49.99; www.sealshield.com) aims to help. Not only is the Silver Seal made from plastic embedded with microbe-inhibiting glass and silver particles, it's also fully submersible. You can wash it in a sink or in a dishwasher, helping that fancy nanotechnology stay clean.

The Silver Surf laser mouse, also from Seal Shield ($49.99), is made from the same material and is also fully washable. It's wireless, too, and laser-driven, which means you don't need a mouse pad (a breeding ground for germs).

While we're on the subject of hand-driven peripherals, we shouldn't lose sight of the importance of ergonomics. Cushy wrist rests provide relief for tired typists, but they also provide shelter to all kinds of germs. Enter 3M and its line of antimicrobial wrist rests (from $24.99; www.3m.com). Embedded with materials that inhibit microbial growth, these supports let you save your wrists and white blood cells at the same time.

If you're serious about antimicrobial office products, extend your attention past the desk—a little lower and a little back. Yes, you can also get an antibacterial chair. The OFM Task Chair (about $337; www.ofminc.com) is made of antimicrobial vinyl and other easy-to-clean materials. It has all the standard features (height and support adjustments, lumbar support, etc.) you'd expect in an

office chair, without the tendency to soak up spills, stains, and germs.

Avoiding Touch

So far, our discussion has focused on making the things we touch safer, either through cleaning or smart product design. And for things such as keyboards, mice, and other work surfaces, those are necessary precautions. But the biggest risks lie in the publicly shared computers we have to touch every day, even if we'd rather not. Touchscreen kiosks, push-button credit card machines, cabinet handles in the printer room—all these carry countless invisible germs. If you're willing to put up with a few odd looks and awkward moments, these products can help you reduce your exposure. For some, they may be an example of taking things too far. For others, who may be particularly susceptible or just extremely cautious, these products can feel like a lifesaver.

Touchscreens are everywhere, from photo kiosks to self checkouts at the grocery store. Most, in addition to being filthy, also respond only to the touch of human flesh. This protects the screen from being destroyed by overzealous penmanship but also exposes you to whatever was on the hands of the last person to touch it. The Pogo Sketch stylus ($14.95; ten onedesign.com/sketch.php) has a soft tip that mimics the feel of skin (to a touchscreen, anyway), allowing you to go about your business without rubbing fingers with the guy ahead of you in line.

You can take the no-touch approach even further with the Handler ($10.95; www.handlerusa.com). It's really quite simple: Let the antimicrobial plastic and rubber hook, available in a wide variety of colors, do all the touching for you. Push-button ATM? Dirty bathroom faucet? Printer and copier buttons? Avoid direct contact and let the Handler do your dirty work. ❚❚

BY GREGORY ANDERSON

Whose Fingers Have Your Keys Been Under?

How To Clean Your Notebook

Notebook computers are more popular than ever, thanks to the spread of wireless networking. In fact, more people have bought laptops than desktop systems in many recent sales periods. Smartphones may become a more prevalent mobile computing platform, but there's no arguing with a notebook's processing power, full-sized keyboard, and ample screen size.

The ability to take a laptop anywhere inevitably means that some of them wind up in places they shouldn't be. The dining room table is a prime example of a danger zone. Coffee cups can spill. Fingers can get all Cheetoed. Crumbs can accumulate underneath your notebook's keys until you can't help but mistype words. Soon, the keys can become so repulsive that you don't want to touch them in the first place.

This article serves as a guide to disinfecting your laptop, erasing fingerprints, and removing any debris gumming up the works. With a few third-party cleaning items, you can get your notebook or netbook clean as a whistle in a safe way. (And if you aren't aware that there are unsafe ways to clean your laptop, this article is definitely for you.)

The rules for all of the following tips are to back up your notebook, shut it down, unplug it, and wait a minute or so for the hard drive to stop spinning before you begin. Ready? Ready.

Screen

There's an old blooper involving an ad for a household cleanser company. It went something along the lines of "We've been cleaning your sink for years, and we've only begun to scratch the surface!"

The biggest reason to use approved products on your laptop's screen is to keep it from getting scratched. If you use something you shouldn't, such as a paper towel or one of your spouse's neckties, you'll probably leave behind permanent swathes of microscopic gouges. Individually, the scratches may be too tiny to see with the naked eye, but in the aggregate, they'll show up as patches of glare or blurriness.

Buy and use a screen-safe cleaning cloth, such as a microfiber or tack cloth made specifically for LCDs and flat-panel TVs. To get rid of fingerprints and other oily-type smears, dampen a corner of the cloth with a little bit of safe screen cleaning spray.

Keyboard

Because users prefer a nice "click!" whenever they tap a key, most notebooks come with spring-loaded keys instead of touch-sensitive, electrocapacitive ones such as those on microwave ovens. Likewise, people prefer to type on keys that are clearly separate from one another rather than lumped together under a protective membrane, as you'll see on keyboards in doctors' offices and industrial environments.

A tactile keyboard may be nice for touch typing, but it really isn't a smart feature from a maintenance point of view. The gaps between the keys gather dust, cookie crumbs, smoke particles, beverage spills, and cat hair. (In our experience, that last part can apparently happen even if you don't own a cat.)

If you can hear little objects rattling around under the keyboard when you tilt your laptop, it's time to clean house. And if one or more keys have started to stick or feel sluggish, chances are that unless you're a particularly emotional typist, a contaminant is more to blame than a failure of the key itself.

The first order of business is to let gravity get rid of as many dust bunnies and Sun Chips fragments as it can. Open your laptop and then ask a helper to hold it so that the keyboard is upside down and tilted to one side. In other words, if there is anything loose under the keys, you want the keyboard angled in such a way as to let the foreign object fall out of a corner.

Next, being very careful not to knock your notebook out of your helper's grasp, run your fingers across each row

of keys a few times, as though you're playing a glissando on a piano. (Glissando is a musical term for that irritating thing your niece does when she tires of playing "Chopsticks.") This physical agitation should help anything that doesn't belong under the keys to fall out. Gently tilt the laptop side to side a few times, and then turn it right side up and set it on a table.

There are a couple of reasons why you shouldn't try to use a vacuum cleaner attachment to remove keyboard detritus. The obvious one is that some models are powerful enough to suck the keys right off. The more subtle reason, and the potentially more damaging one, is the fact that vacuums generate static electricity as they pull particles through their attachment hoses. One good shock and you might need a new motherboard or other expensive component. The data on your hard drive might be at risk, too.

Next, use a can of Dust-Off (www.falconsafety.com) or other compressed gas to blow out any remaining debris under the keys. Normally, you should keep the nozzle an inch or two away from whatever you're cleaning, but in this case, you'll need to poke it under the edges of the keys. Start with the keys on one side of the keyboard and work your way to the other end. (If you want to use an air compressor, keep the pressure low and use an inline filter to remove water and oil from the air.) While you're at it, give the exhaust vent a shot of gas to loosen any crusties that may be trapping heat in your system.

Finally, have your partner turn the laptop upside down once more so you can ruffle the keys again.

Disinfection

Here's the part that's timely, this being hay fever season and all. Watery eyes and drippy noses serve as a reminder that it's a smart idea to kill the germs on your laptop once in a while.

To disinfect everything *except the screen*, you can use antibacterial sanitizing wipes that are recommended for
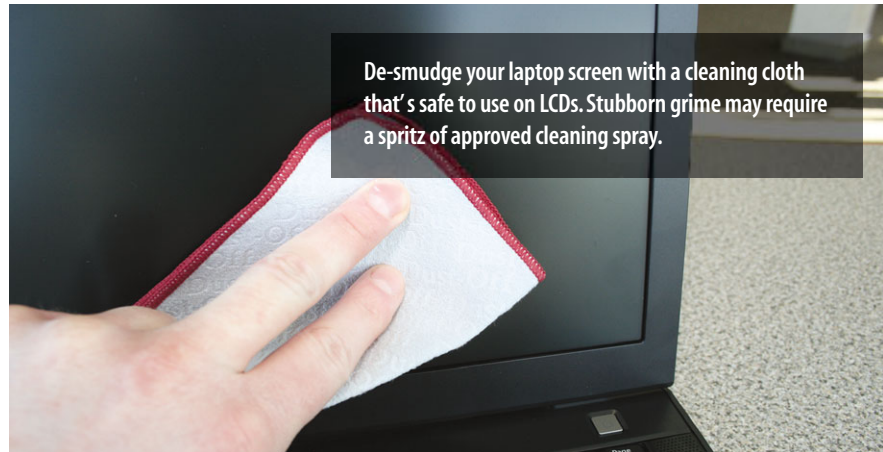
De-smudge your laptop screen with a cleaning cloth that's safe to use on LCDs. Stubborn grime may require a spritz of approved cleaning spray.
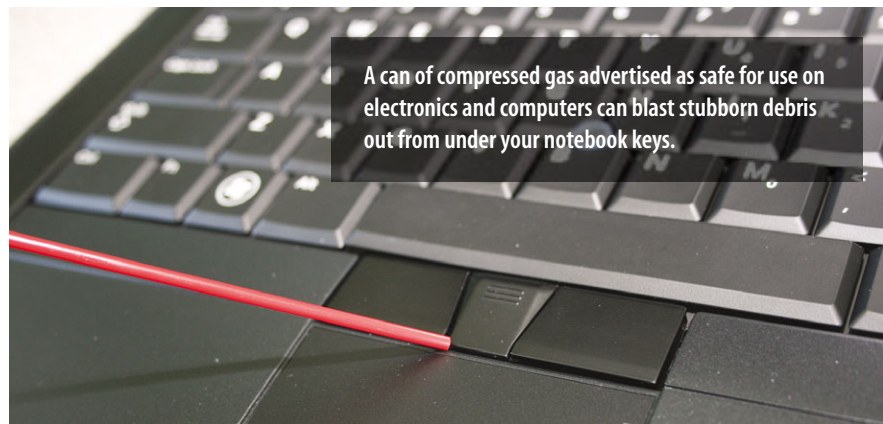
A can of compressed gas advertised as safe for use on electronics and computers can blast stubborn debris out from under your notebook keys.

plastic surfaces such as shopping cart handles, baby seats, and so on. (If you have a tablet PC with a touchscreen, follow the manufacturer's directions for screen cleaning.) Depending on the wipes you buy, however, there's a risk that you might discolor the plastic of the notebook's enclosure. First, do a trial patch on the underside of the laptop. If nothing alarming happens in the next half-hour or so, the wipes are probably color-safe for your notebook.

The keyboard and trackpad are the most important things to sanitize, but you should also pay special attention to

the laptop's wrist rest areas, the Spacebar, and the part(s) of the outer shell you hold onto when you carry the notebook from place to place. Also, be sure to wipe the edges of each key as you press down the keys next to it. Try to do this operation last, when the wipe is less likely to be dripping with sanitizing solution.

With the right cleaning products and a few minutes of effort, you can make your portable computer less of a health hazard and more enjoyable to use. ▮

BY MARTY SEMS
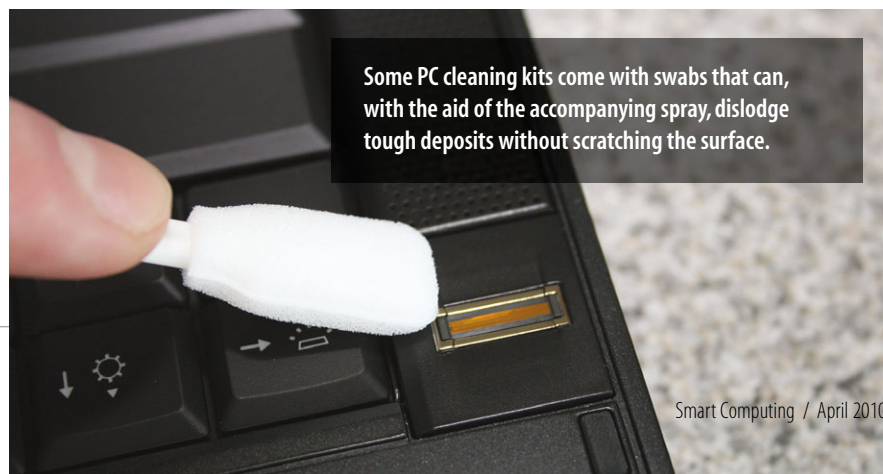
Some PC cleaning kits come with swabs that can, with the aid of the accompanying spray, dislodge tough deposits without scratching the surface.

Cable Wrangling

Conceal & Manage Your PC's Cords

Climbing ivy vines can be lovely on an exterior wall, and hanging décor on home interiors can add depth to the room; but for some reason, cables trailing from your computer and across your desk miss on both counts. The unattractive cords attached to your electronic devices may also waste valuable desk space and be tripping hazards. In this article, we'll provide some tips that'll keep your computer's cables organized and detail the type of products you can use to unclutter your desk.

Cable Control

Even most "wireless" devices have power cables, and with the variety of electronics in our daily lives, we're betting you have a pile of cables in, around, and behind your desk. The first step to corralling the cable clutter is to tie together the loose cables. By binding the cables together, you'll have one section (or a few) of cable, rather than single cables strewn across your desk. One way to group the cables together is by using plastic cable ties, sometimes called zip ties, which you can find at any hardware store. There are also a number of custom bundle options, including wraps, sleeves, and wire looms, that allow you to cover your cables.

Before you get started, you'll need to consider which cables to tie together. Most audio and video cables offer only basic shielding from electromagnetic interference, which naturally emanates from power cables and can degrade the sound and picture coming from your monitor and speakers. To avoid any signal problem conflicts, it's best to separately bind the power cables and A/V (audio/video) cables. Cables also suffer when they are pulled too tight or are bent, so you'll want to avoid putting too much pressure on the cords.

Route The Cords

Once you tie your cables together, you'll want to hide the excess cabling from sight. There are a variety of ways to conceal cables, and depending on how far or where the cables run, you may choose a different method. For those with only a few power cables that run beneath the desk, you can invest in some cable guides that the cables can sit on behind the desk—without dropping to the floor or becoming a tangled mess. If you have several sets of cables or a few thick cables, you can invest in a tray that sits behind or underneath your desk. With a tray, you'll have more room to place the cables and be able to better separate the power and A/V cables from each other.

Across The Room

Our PC peripherals, such as printers or network routers, aren't always located at our desks. Running wire along the edge of the wall or underneath the carpet doesn't always look the best, and the cables can be damaged when people walk over or trip on them. And if you route the cables behind the wall, you'll need to make the effort to cut openings (avoiding existing electrical wiring and studs) and pull the cable through both sides of the wall, which is often easier said than done.

Thankfully, there is a variety of aesthetically appealing raceways, covers, and channels that you can install along your wall or baseboards to invisibly run the cables across the room. Generally, the cord organizers are sold in kits that let you cut and install only the amount you'll need to reach your electronics or wall outlet. Most cable covers are paintable or available in a variety of colors to match your room décor. For those running power cables, look for nonconductive, self-extinguishing

materials so you can avoid any issues with electrical fires.

So you concealed the wires running around the room, but at the base of your desk, you still have a tangled mess of power connectors and a clunky surge protector or power strip. If you'd like to remove the clutter around your surge protector, you can invest in a model with its own box to conceal the cables, power strip, and connectors. If you like the surge protector you currently have, you can invest in a cable box that can stow your messy power cables.

Go Wireless

Investing in wireless devices is one way to reduce the amount of cables at your desk and around your office, even though they inevitably include some of their own cords. For example, if your network router is located in another room, you can eliminate the need to run Ethernet cable to your PC by purchasing a wireless router and a wireless adapter. Another option is a **powerline network**, which is a technology that uses your home's existing power lines to send data. Powerline networking kits include two adapters, so you can just connect one adapter to a wall outlet near your router and one to a wall outlet near your PC. Then, you can run a short patch of Ethernet cable from the wall outlet to your network hardware.

Printers have become one of the most popular wireless devices, because you won't need to always leave on a network PC to remotely send content to the printer. Additionally, you can locate the printer in a mutually convenient location, rather than next to one person's computer. If you're looking for other ways to reduce wire clutter on your desk, consider a wireless mouse and keyboard. Most current wireless keyboards and mice feature Bluetooth wireless connectivity, which allows you to use the device up to 30 feet away from the wireless receiver. ▐▌

BY NATHAN LAKE

STOCK UP

To better help you organize your cables and work area, we've found a few options for the various products we discussed earlier.

Conceal Surge Protector
$49.99 | Belkin
www.belkin.com

Designed to hide the mess of connectors and the blocky surge protector underneath your desk, the Conceal Surge Protector from Belkin features a lid with built-in spaces to route the power cables, so you'll only see the main power cord running to the outlet. It features 11 surge-protected outlets, as well as inputs and outputs for your phone line. The Conceal Surge Protector includes a $300,000 Connected Equipment Warranty.

CableBox
$29.95 | Bluelounge
www.bluelounge.com

This plastic, rectangular box includes a lid and two slots on the short sides, so you can simply lift your current surge protector or power strip into it and organize your power cables. The CableBox is 5.3 inches tall, which gives you some space to store excess power cords inside the box. For safety, the CableBox is made of fire retardant material.
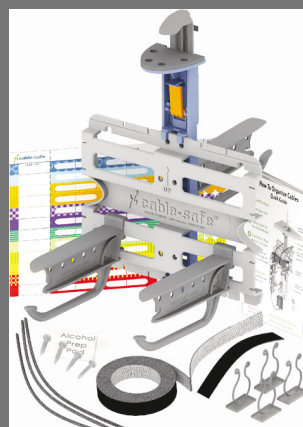
Cable Manager
$34.95 | Cable-Safe
www.cable-safe.com

Cable-Safe's Cable Manager is a kit that helps you move cables and power strips off the floor and organize them underneath your desk. The Cable Manager includes a clamp, which you can attach to a shelf or cable grommet, and mounting screws, so you can fit it anywhere under your desk. It can hold up to two power strips and features an adjustable shelf for storing power adapters and other small peripherals, such as your router. There's a CableHook shelf to tie up and loop cables and power cords, and straps are provided to bundle excess cords.

Pixma MX340
$99.99 | Canon
www.usa.canon.com

The Pixma MX340 is an all-in-one wireless photo printer that can produce borderless prints up to 8.5 x 11 inches. With its 802.11b/g connectivity, any PC connected to your local area network can print to it—no wired USB connection necessary. The all-in-one includes a 30-sheet document feeder above the scanner, so you can quickly copy or scan original documents or photographs. And with Canon's Auto Scan Mode, the Pixma MX340 can detect what type of document you're scanning and adjust scan settings to suit the project.

EZ Hidewire
$29.95 for 25 feet of 1/2-inch Hidewire
Rand Manufacturing
www.ezhidewire.com

EZ Hidewire lets you organize and camouflage cables running along a wall, near baseboards, and along door trim. It features a self-adhesive strip of tape along one side and built-in creases, so it's easy to fold around your wires and cables. Once you've installed it on the wall and placed the cables, just peel away the tan tape on the far end and seal your cables inside. The raceway is paintable, and it can be formed at 90-degree angles, so you can run cords around corners.

Signum Cable Management
$10 | Ikea
www.ikea.com

This steel tray sits underneath your desk and securely holds your cables and power adapters. The Signum Cable Management tray also features slotted brackets to let you separate power and A/V cables. It's around 29 inches long and 6 inches wide.

Cablemate Cord Organizer (CMK90)
$24.99 | Wiremold
www.legrand.us

The Cablemate resembles a baseboard and includes two 30-inch wire raceways. It features three separate channels, so you can prevent electromagnetic interference from reaching your video or audio cables. To install, mount the bracket, cut the raceway to the appropriate length, screw it into the wall, and lay the cords in the channels. The cover snaps shut for a sleek appearance.

4GB Eye-Fi Share Video
$79.99 | Eye-Fi
www.eye.fi

Do you find yourself often breaking out cables to transfer images and videos off your digital camcorder and digital camera? With the 4GB Eye-Fi Share Video, you can upload photos and videos to your PC over your wireless home network. Simply turn on your camera within range of your wireless network and Eye-Fi software will automatically transfer the files on the memory card to the folders of your choice. You can even send the photos to your Flickr, Facebook, Picasa, MobileMe, or YouTube accounts.

Wireless USB Hub & Adapter Kit
$129.99 | Iogear
www.iogear.com

Do you have limited desk space for peripherals? Iogear's Wireless USB Hub & Adapter Kit gives you the freedom to place USB devices, such as printers and external hard drives, anywhere up to 30 feet away. The Wireless Hub includes four USB ports, so you can connect a variety of devices, and all you'll need to do is attach the Iogear adapter to a free USB port on your computer. The Wireless USB Hub & Adapter Kit works at full USB 2.0 speeds—perfect for transferring files or playing videos and music stored on the hard drive.

Anywhere Mouse MX
$79.99 | Logitech
www.logitech.com

The Anywhere Mouse MX is a wireless mouse that features Logitech's Darkfield technology, so it can work on nearly any surface, including glass with at least a 4mm thickness. Thus, you won't even need to use a mousepad on your desktop. It also works with Logitech's Unifying Receiver, a tiny receiver that you can keep in your notebook or desktop PC and also use to control compatible Logitech wireless keyboards.

Powerline A/V+ 200 Adapter Kit
$149.99 | Netgear
www.netgear.com

This set of powerline adapters provides the speed you'll need to consistently stream HD (high-definition) video and music across your home network without stringing Ethernet cable across your house. Additionally, Netgear integrates noise-filtering technology to keep the signal clean and ensure error-free data. To reduce energy use, the set of powerline adapters automatically powers down when not in use. It also offers an external socket to replace the wall outlet it uses.

Check Out The
Tech Support Center!

The Tech Support Center at SmartComputing.com has always been the place to find helpful information for all of your computing troubles. Check out the Networking & Communications area to find out how to install and configure your home network properly. You'll find out how to set up your wireless network, fix wireless connection problems, and much more. Be sure to take a look at the Backups & Data Recovery section, as well. This area contains articles that explain the ins and outs of creating system backups, recovering lost data, and other backup basics. Check out these articles at SmartComputing.com's Tech Support Center today.

1. Go to SmartComputing.com and click the Tech Support Center link on the home page.

2. Click Backups & Data Recovery or Networking & Communications.

3. Click View ALL Backup & Data Recovery Articles or View ALL Networking & Communications Articles to view articles within those departments.

Tech Support Center

- Error Messages
- Solutions Knowledgebase
- Basic Troubleshooting Articles
- Security & Privacy
- How To Get Rid Of
- Backups & Data Recovery
- Preventive & Regular Maintenance
- Networking & Communications
- Articles On How To Install … Just About Anything
- Driver Education
- Other Helpful Tech Support Tools

Smart Computing.
Subscribe Today | Contact Us | Register Now
Home | Tech Support | Q&A Board | Article Search | Subscribe & Shop | Log Out

How To Install

General
How To Install Windows 7
How To Install A Dual-Boot System
How To Install Applications
How To Install Hardware
How To Install Linux
How To Install Office 2007
How To Install Windows XP

Storage
How To Install A Blu-ray Drive
How To Install An External Backup Drive
How To Install CD & DVD Drives
How To Install External Storage Devices
How To Install Internal & External Hard Drives
How To Install RAID 0
How To Install RAID 0+1
How To Install RAID 1
How To Install RAID 5
How To Install Tape Drives

Audio/Video
How To Install A Web Cam
How To Install An FM Transmitter

Peripherals
How To Install A Keyboard
How To Install Joysticks & Other Gaming Devices
How To Install Mice & Trackballs
How To Install Multifunction Devices
How To Install Printers
How To Install Scanners

Components
How To Install A CMOS Battery
How To Install A CPU
How To Install A New Power Supply Unit
How To Install New Ports & Expansion Cards
How To Install RAM
How To Install A Motherboard

Networking/Communications
How To Install A Dial-up Modem
How To Install A Wireless Network
How To Install Desktop PC NICs
How To Install DSL & Cable Modems
How To Set Up A Small Wired Network
Simple, 2-PC File & Printer Sharing Networks

Cuthbert Hurd

This month in 1911, Cuthbert Hurd was born. A quiet member of history, according to the *Smart Computing* Dictionary & Encyclopedia, "Hurd was partly responsible for helping IBM gain its grip on the computer industry in 1953."

April Fools

Mischievous minds are gearing up for April Fool's Day, and those in the computing industry are no exception. Last year's highlights included Opera's facial-expression-driven browser, Guardian's move to a Twitter-only publication, and smellr (it's like flickr for your nose) to name a few.
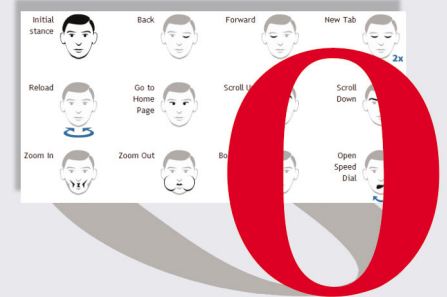
How To Install . . .

What fun is owning a computer if you can't add stuff to it? Click the View ALL How To Install . . . Articles link at our Tech Support Center to learn how to install everything from printers to heatsinks.

Smart Computing's Dictionary & Encyclopedia

cloaking

The act of hiding your name and email address in an email. Individuals who distribute bulk unsolicited email often cloak their real identities and email addresses to avoid retribution from those angry over being "spammed."

noboday@nowhere.com
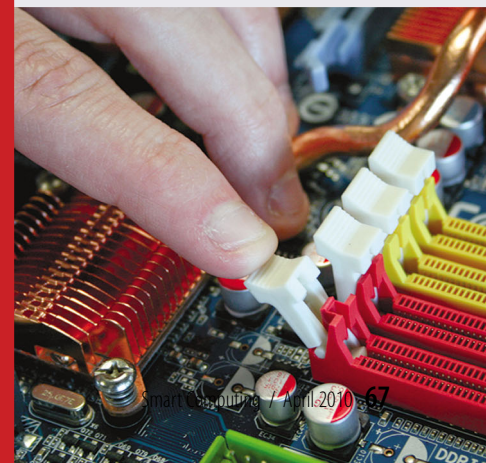
Microsoft Word 2007

Make Revisions Using Track Changes

There are times while working on a document when you want to keep track of the changes you make. It's particularly important when working on a document with a group of people. The Track Changes feature in Word 2007 lets you do just that. The areas of the Ribbon we will be exploring are on the Review tab, labeled Tracking nd Changes. There is a section called Comments on the left that also relates to Track Changes; mainly in the way they show up in balloons.

On the left of the Tracking section, the large button called Track Changes has two sections. Click the top to turn on Track Changes. Any deletions, additions, or edits you make with this button selected will be marked in some way and can be placed in a balloon at the side of the page, if you choose to do so. You and other users can add and delete text and make changes normally, and Word will keep track of it all.

Change Views

After other users have made their changes to a document, you might want to adjust how you view changes. At some point, a document may become nearly unreadable because of all the marks on it. Click the Display For Review drop-down list in the upper right of the Tracking section and choose Final from the list. This shows you the document as though all of the changes were accepted. The marked changes are still there and marks will continue to be made, but they are hidden. To go back to viewing the tracked changes, click Final Showing Markup. View the document as it originally appeared by clicking Original. View the original text with tracked changes visible by choosing Original Showing Markup.

Another display issue is whether to show balloons, and if so, what to show inside them. Click the Balloons button to make changes in their behavior. Choose Show All Revisions Inline to not use balloons at all. If you want balloons to appear on screen next to the document, use Show Revisions In Balloon. Finally, choose Show Only Comments And Formatting In Balloons to restrict balloon contents to those two items.

Click the Reviewing Pane button and choose either Reviewing Pane Vertical or Reviewing Pane Horizontal, whichever looks best on your monitor. This pane provides an overview of your changes and quick links to them in the document. (It also includes information about comments.) You can accept or reject changes from within the Reviewing Pane by right-clicking them and then making the appropriate choice from the context-sensitive menu.

Finally, click the bottom part of the Track Changes button and choose Change Tracking Option to bring up a large dialog box that lets you change the appearance of the changes you make, and whether certain behaviors, such as balloons, are turned on or off.

Sort Through Changes

The last item in the Tracking group is the Show Markup button. This provides two functions: You can determine which types of changes you want to see, as well as whose changes you want to see. The selection Ink applies to Ink Annotations, a feature that is available for Word users who have access to a drawing tablet or are using a Tablet PC. The Markup Area Highlight shows the document area in white and the Markup Area in a light gray. The Reviewers list lets you determine whose changes are visible.

Once you choose a particular reviewer, you can then go through his or her proposed changes. Use the Changes section buttons to accept or reject each change individually. Note that the Accept and Reject buttons have two parts; clicking the top part simply accepts or rejects the current change, while clicking the bottom part lets you do that as well as move to the next change, or accept or reject all changes. The Previous and Next buttons simply move you from one proposed change to another.

It's a good idea to use the Reviewing Pane as the last thing you do before submitting the document in its final form. Remember that changing views does not accept or reject changes. You must do that yourself. Leaving in a tracked change could be embarrassing to the reviewer or receiver of the document. ▌
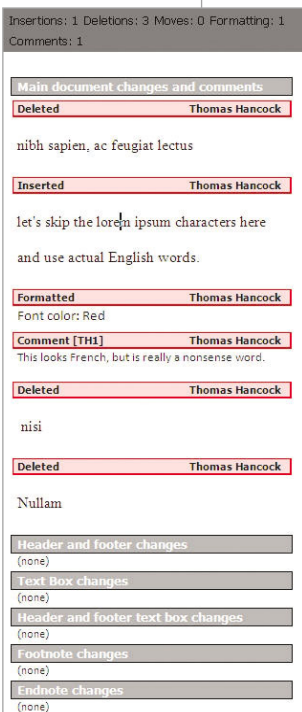
The Reviewing Pane gives you a summary of changes and comments in a document. You can perform many functions from here.

BY TOM HANCOCK

Quick Studies
How-To

Digital Media
Suite

Beginner

WinXP/Vista/7

Roxio Creator 2010

Create A Slideshow

Digital slideshows are fun, personalized, and great for sharing. And even better, they're quick and easy to make with Roxio Creator 2010.

Creator has two applications for creating slideshows: Slideshow and PhotoShow. This month, we'll show you how to use the Slideshow Assistant to put together some entertainment for a wedding rehearsal dinner, but you can use the tool for anything from commemorating a vacation to celebrating a birthday.

Select photos. Begin by clicking the Photo tab on the Creator Home page and choosing Create Slideshows from the Create menu. Next, click Add Photos in the left panel of the Create A Slideshow window. Browse your hard drive (or the device attached to your computer), highlight the photos you want to include, and click Open. This loads the photos in the workspace. You may use the Add Photos option as many times as you'd like to add photos from various folders and locations.

Digital slideshows are a fun way to celebrate memorable events.

Arrange photos. Next, arrange the photos in the desired order. Click a slide, drag it, and drop the slide in the correct spot. Have too many slides? Right-click an individual slide or group of slides and select Remove from the context menu. Need to edit a slide? Edit from within this window by clicking the slide and then clicking the Edit Selected Item icon (the first icon along the top of the workspace). Keep in mind that any edits you make here will affect only the slideshow and not the original image.

Add caption slides. One neat trick to jazz up your slideshow is to insert what we call a caption slide. A caption slide contains only text and makes for a good transition between groups of photos in your slideshow. In our wedding example, we created three such slides: his story, her story, and their story. Click the Add Blank Slide icon (the last icon at the top of the workspace), select a background color, and click OK. The slide is added to the end of the slideshow. Position the slide where you want it, and then click the Add/Edit Text On Slide icon (next to the Add Blank Slide icon). Enter the desired text; adjust the color, font, and location to your liking; and click OK.

Add audio. If you want music with your slideshow, click the Add Background Audio button. Roxio lets you select from a number of genres via the SmartSound Audio feature. To add audio that is already saved on your hard drive, click the Add Audio Track button, select the desired songs, and click OK. You can drag and drop them in any order. To delete a track, select it and then click the red "x" above the track listing.

Preview and more. Take a moment to enjoy your creation by clicking the Preview button. The slideshow launches in a preview window. Then, click Close to return to the main window and click Next. The Customize Your Slideshow window is where you can fine-tune your creation. Creator includes about a dozen different transitions to place in between slides. The Dissolve transition is selected by default, but you can choose any of the other options in the Transition Style menu, and a preview window below the menu shows you each style. The left panel also is where you can determine how long each slide appears (the slide duration menu indicates the length per slide in seconds) or where you can have the slides match your soundtrack by selecting the Fit To Audio checkbox. Click Next.

Save and share. Before you choose an output for your slideshow, it's a good idea to save your project; this will allow you to make changes to it in the future. In the Output window, click the Save This Project button and save the slideshow as a .DMSS file, a proprietary Roxio format.

Now, you're ready to save the file so you can share it. Click the Create File button. Select All from the Purpose menu and then choose any of the more than 40 formats in the Video File Quality menu. Or, if you're unsure which format is best, use the Purpose menu to choose how the slideshow will be viewed, such as on a TV or via email, and then use that option's associated default Video File Quality setting. (We chose Slideshow from the Purpose menu and Windows Media Video 9 from the Video File Quality menu so we could view the file using Windows Media Player.) Click Create Video File, and in a minute or two, your slideshow is saved and ready for sharing. ▮
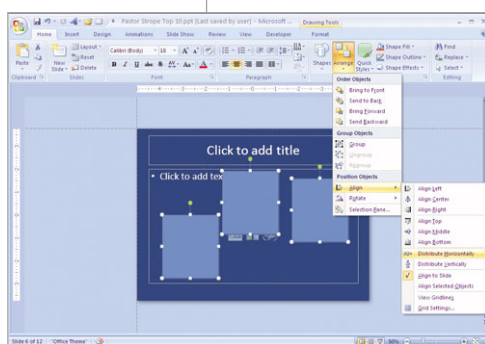
BY HEIDI V. ANDERSON
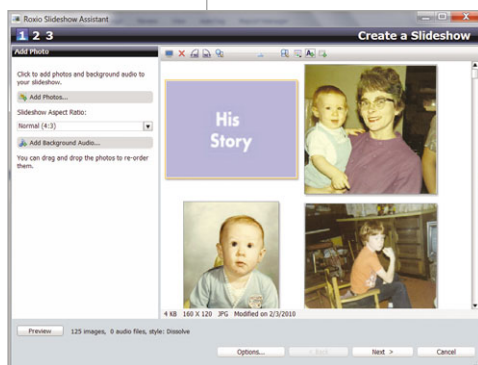
Microsoft PowerPoint 2007

Arranging Shapes

As soon as you venture beyond the world of bullet lists, you'll deal with PowerPoint slides full of elements. Text boxes, shapes, photos, and more all have to find a proper place to make a slide appealing and readable. Sometimes, that gets maddening. We've all fought with problems such as text that just won't seem to come out of hiding behind a photo. This month, we cover key tips for making objects show up where they're supposed to.

Don't waste time trying to space objects evenly. Use PowerPoint's automatic alignment tools to instantly arrange things perfectly.

Move To The Front & Back

Let's start with one of the most annoying of object arrangement problems: what's in front. The last thing inserted into a slide sits "on top," obscuring anything that happens to be behind it. Many times, you wind up with a situation such as a photo that's inserted *after* text that's supposed to appear on top of the photo. So the text hides behind the photo. To fix this problem, click the Home tab's Arrange button in the Drawing Section.

The options here move the selected object up and down in layers. If you click the text box and choose Bring To Front, the text box shows up in front of the photo and anything else on the slide. Send To Back, as you probably guessed, puts the selected object behind everything else. Except the slide's overall background. Even objects sent to the "back" sit on top of the slide background, so don't worry about sending something into oblivion behind the slide itself.

The Arrange button includes a couple of similar-sounding options with different functions: Send To Back and Send Backward. The first option moves an object behind everything else. The Send Backward option moves an object back one level. If it's on top of a stack of three objects, then clicking Send Backward will make it the second object in the stack.

In some cases, you might use these options just to figure out all the stuff stacked up together. Click what you see and choose Send To Back to reveal the next layer down. You can also start dragging objects over to the side to find what's hidden underneath.

Groups

Grouping objects is a huge time-saver, because it lets you perform an action on multiple objects at once. It can also save your sanity if you spent a long time creating something such as a graphic made up of several individual shapes, only to realize you need it somewhere else on the slide. With grouping, you can drag the entire graphic as a unit, rather than moving and rearranging each part.

To group several objects, hold down the SHIFT key as you click each one and then press CTRL-G (or click the Arrange button and choose Group). You'll see the familiar sizing handles change so there's only one set for the entire group, rather than one for each individual object. Click anywhere on the group to move it, or use the sizing handles to resize and rotate the entire group as a unit. To ungroup the objects and restore them to individual parts, press CTRL-SHIFT-G (or choose Ungroup under the Arrange button).

Many users overlook the power offered by the Regroup button. Once you've grouped and ungrouped objects, PowerPoint remembers what you did. The next time you click one of the objects from the former group, click Arrange and choose Regroup to rebuild the old group. (If only it were so easy after your favorite band split up.)

Alignment

Use the Arrange button's Align tools when you want to quickly tidy up several objects, such as several photos arranged across the bottom of a slide. Instead of trying to manually place the photos an equal distance apart, you can hold down the SHIFT key while clicking each photo and choose Arrange, Align, Distribute Horizontally. (Make sure Align To Slide is selected under Align.) The photos automatically stretch across the slide in a perfectly spaced pattern.

If the photos aren't sitting exactly on the bottom of the slide, click Arrange, Align, Align Bottom, and the photos will sit on the bottom of the slide, maintaining their horizontal spacing. Use other combinations of the Arrange button's Align options to evenly space objects vertically or align them along other edges of the slide. ▮

BY TREVOR MEERS

Browsers

Print The Web With Popular Browsers

Browsers

Beginner

The Web is always temporary. A page may change or disappear altogether. It can also be hard to take a Web page with you, at least in its electronic form. However, you can print Web pages easily from any of today's popular browsers.

Printed Web pages typically don't look exactly like they do on a screen. Formatting often changes when a Web page is forced into the bounds of standard paper sizes. For those times when you need to take a Web page with you, however, your browser's print function is a very handy feature.
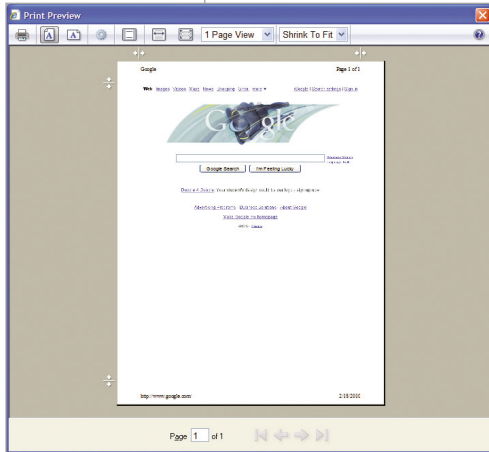
Internet Explorer's Print Preview shows you exactly how a Web page will print.

Internet Explorer

Internet Explorer 8 is the one browser on this list that includes an easy-to-find print button on the default toolbar. You should see the Printer icon you know and love from other programs on the Command Bar, which is the same line where you see the browser's tabs. Click that button to print the Web page immediately. If you'd like to select your printer and change its settings, click the down arrow next to the printer icon and then click Print.

When you click the arrow, you'll notice that it also displays other commands, such as Print Preview and Page Setup. In Print Preview, you'll not only see what the page will look like on paper, but you'll also have access to the various commands that tailor the printout as you see fit.

The main section of the Print Preview screen shows you the proposed printout with all of the default options selected. Along the outside of the page preview itself, you'll see lines with arrows pointing either direction. These indicate where the margins of the page will be. Click one of those lines and drag it up and down or side to side to make the margins larger or smaller.

Buttons on the Print Preview screen let you choose portrait or landscape printing, add headers and footers, and change the scale of the printout. The default, Shrink To Fit, generally works the best, but you can choose to reduce or enlarge the page elements to fit better on your paper or make

the text more legible. Use the arrow keys along the bottom of the screen to skip from page to page. When everything looks good to go, click the Print button on the left end of the toolbar.

Firefox

Firefox seems to have taken a page from IE's printing options, with an end product that looks a lot like what you see in the Microsoft browser.

There's no print button front and center as in IE, but you can quickly open the Firefox Print Preview screen by selecting it in the File menu. You'll see a window with many of the same commands as in IE. You can click page buttons to move from one page to the next, select portrait or landscape printing, change the scale of the page, and access additional features by clicking the Page Setup button.

Safari

Apple's Safari browser for Windows doesn't have quite the range of printing commands as in IE and Firefox. You'll find the Print option in the Page menu, which is the button in the upper-right corner with the page of paper icon. You can also press CTRL-P to bring up the Print dialog box.

Safari does include a Print Preview option, although it's not in the Page menu. Click the File menu to find it. In the Print Preview screen, you can choose page orientation, look at how each page is going to print, and change the paper size and margins by clicking the Tools icon (it looks like a gear).

Click the Print icon to see the standard Print dialog box where you can choose the number of copies and a page range to print.

Chrome

Google's Chrome browser includes basic print capabilities. To print the page you're viewing, click the Page menu (it's the button with the page icon) and select Print. A standard Print dialog box appears. There is no print preview option, so you'll find out what everything looks like when the paper comes out of your printer. It may not be pretty, but at least it's more permanent. ▌▌

<div align="right">

BY ALAN PHELPS

</div>

Online

Track Your Location With Google Latitude

With the growing popularity of GPS (global positioning system)-enabled smartphones, your location is something more Web and mobile application designers can incorporate into creative new software. And if any Web company is putting together an application of any kind, Google probably has something similar in the works.

Google's current big idea when it comes to GPS is Latitude, a service that works with Google Maps to track your every move. Latitude uses the GPS in your phone to record your position throughout the day and make it available to friends and family. Assuming you know other people using the service, you can see who's nearby at any given time.

The concept of Google Latitude might strike some as a little creepy, but your location information is not given to just anyone without your permission. You can select who sees what, and whether it's your exact address or just the city you're in. You can also choose to update the information manually or continuously.

Google Latitude broadcasts your exact location to friends and lets you see who's nearby.

Here & There

To set up Latitude with your Google account, head to latitude.google.com. The Latitude page tells you where to point your cell phone browser to pick up the necessary software. You can also scroll down to add Latitude to your iGoogle page, which is Google's service that lets you create your own personalized home page.

If you use an Android, BlackBerry, or Windows Mobile smartphone (among other compatible devices), you can use Latitude with a dedicated phone app that updates your location automatically. If you use an iPhone, you'll need to go to the Web version of Latitude using the Mobile Safari browser. Latitude works fine as a browser app, but only while you have the Latitude page open.

Latitude is not much fun if you're the only person using it. Turn your friends into Latitude contacts either from your phone or in the iGoogle Latitude screen. In iGoogle, click the link to view your profile. On the next screen, click Add Friends. Select the friends with whom you would like to share your location and click Add.

Once some contacts respond and switch on Latitude for their own Google accounts, you'll start to see them showing up on your map. You can click arrows on the iGoogle window to move from friend to friend. On your phone, look for the Friends button to see a list.

Where It's At

Whether you have Latitude automatically update your location or if you only update it manually from time to time, you can have some fun by turning on different features that share the information Google collects.

To see a few options, go to www.google.com /latitude/apps. The first is the Location History option, which not only tracks your current location but also keeps a list of your past locations.

The next option, Location Alerts, tells you when your Latitude contacts are nearby. Alerts works with Location History to filter out near misses that happen on a routine basis, for instance, if you and your contact work at the same place. Alerts will only give you a heads up if you run across your contact in an unusual place or at an unusual time.

The Public Location Badge is a snippet of code that you can add to a blog or other Web site to let friends (and pretty much anyone) know where you are even if they don't use Google Latitude. Because the Public Location Badge is so, well, public, you might want to choose the option that lists only your city rather than the specific address.

Google Talk Location works similar to the Location Badge, except it lists your location in your Google Talk status message. That means that only the people who you correspond with via Google Talk will see your location. Although the Google Talk message isn't as public as a badge on a Web site, it's still public enough you might want to consider sharing only your city rather than your address.

Latitude isn't for everyone. For one thing, you may incur data charges from your phone service provider, depending on your plan. And some might recoil at the very idea of Latitude. However, for others—particularly busy families—keeping each other on the map could be fun and somewhat handy. ▐▌

BY ALAN PHELPS
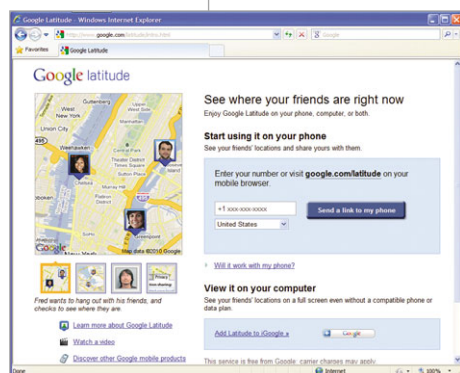
Microsoft Excel 2007
Troubleshoot Printing Issues

Your biggest Excel challenge may be bridging the gap between screen and paper. Printing a worksheet can be a frustrating saga full of data scattered across so many sheets of paper that it's unreadable. This month, we'll help fix a few of these headaches with solutions to typical printing problems.

I never know what I'll see coming out of the printer when I send Excel worksheets to it.

That's a wide-ranging problem that touches on several issues we will cover below. But it's good to remind you right at the beginning to always use Print Preview to check on Excel's intentions for your hard copy. Although Excel places most of its printing tools on the Page Layout tab, it makes you go hunting for the Print Preview option. Find it by clicking the Office button and choosing Print, Print Preview. You also can press CTRL-F2 for instant access.

Print Preview saves untold paper and time by immediately revealing if you're about to do something such as strand a single column on a sheet of paper all by itself. Use the Zoom tool to zoom in and out for a closer look at your work. Be sure to use the Next Page and Previous Page buttons, if they're available, to look around and see if your document is spilling over onto another sheet.

The Preview screen isn't designed for making many adjustments, but you can change the margins here. Checkmark the Show Margins option and use the mouse to drag the margin lines to new positions.

My worksheet has 50 rows of data, but Print Preview shows only about 10. What happened to everything else?

At some point, you probably set a print area that covers only the first 10 rows. A dotted outline indicates the print area in Normal view, but it may be difficult to see among the on-screen data. To start over, click the Page Layout tab's Print Area button and choose Clear Print Area.

Now Excel will assume you want the entire worksheet to print, and you'll see all of it show up in Print Preview. If you actually do want to print only some of the worksheet's data, drag your mouse over a block of data and then choose Print Area and Set Print Area.

My worksheets keep printing with one or two stray columns of data on a second sheet of paper.

Flipping your worksheet to print sideways is an easy fix in many situations. On the Page Layout tab, click Orientation and choose Landscape instead of Portrait. This prints your worksheet using an 8.5- x 11-inch sheet of paper's long edges as the top and bottom, giving you more space left-to-right.

I tried Landscape orientation, and my worksheet is still too wide for a single sheet.

Try another easy fix: shrink the data a bit so it fits onto a single sheet of paper. On the Page Layout tab, look for the Scale To Fit section. Under Width and Height, you can choose the number of pages you want your worksheet to fit on. Print Preview will help you see where things are spilling over. You can also use the Scale tool to adjust the entire size of the worksheet downward until it fits, taking care not to make it so small that it's unreadable.

One other quick option is hidden in the Page Setup box, which you can reach by clicking the small arrows in the bottom-right corners of the sections on the Page Layout tab. In the dialog box, click the Fit To button and choose the number of pages you want to squeeze your worksheet onto. Click Print Preview in the dialog box to see whether this process left the data at a readable size.

Excel keeps splitting data across pages in strange ways.

It's easy to take control of page breaks in the Page Break Preview, which you enter by clicking the icon in the lower-right corner of the Excel window, down by the Zoom tool. In this view, you clearly see where Excel plans to split up pages in a way that's even easier to understand than Print Preview shows. Don't like a break's position? Just drag it somewhere else. Want a new break? Right-click and choose Insert Page Break. ▮▮
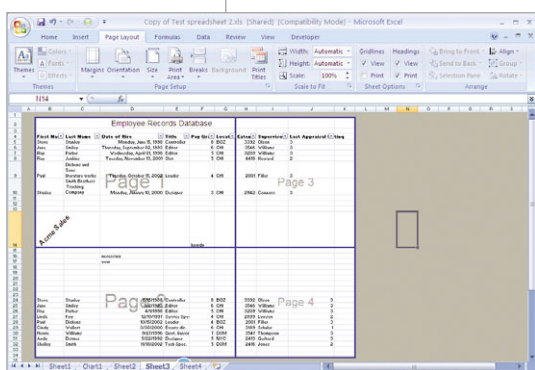
BY TREVOR MEERS

Quit guessing how your worksheets will show up on paper. Use tools such as Page Break Preview to see exactly where the breaks will fall.

Quick Tips

Secrets For Succeeding In Common Tasks

BY STEPHEN J. BIGELOW

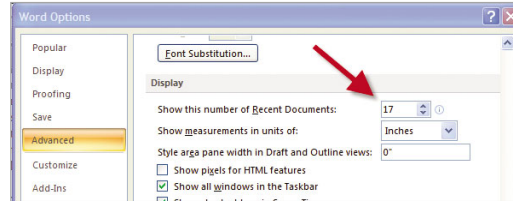### Microsoft Word 2007

Question: I work with a ton of documents. How can I see a larger number of documents in Word 2007's Recent Documents shortcut list?

Answer: Microsoft Word 2007 allows you to change the number of previous documents listed for quick selection. Launch Word 2007, click the Office

You can see more or fewer of the documents you recently modified by changing a setting in the Word Options menu (in Word 2007).

button (at the upper-left corner of the Word window), click the Word Options button, and click Advanced. Scroll down to the Display area. Click the arrows next to Show This Number Of Recent Documents to select a number that is more appropriate for your needs. Click OK to save your changes.

Photo Printers

Question: Why do I need to calibrate my ink photo printer? How often should I calibrate it?

Answer: Ink printers form images by squirting droplets of ink as the heads move horizontally left and right. This design works great, but it's important to set the left and right head movements so that the text and image elements remain perfectly aligned vertically—if the right-to-left and left-to-right head passes are not precisely aligned, the text and image will have little "jaggies" down the page. This alignment process is called head calibration.

Old ink printer designs printed a series of test patterns and allowed the user to enter a number that corresponded to the optimum alignment. Today, ink printers usually self-align when initialized, when new ink cartridges are installed, and so on. However, you can still cause the ink printer to run a calibration cycle anytime that you notice signs of alignment problems.

In Windows XP, click Start, Printers & Faxes, right-click your printer, and then click Properties. Your printer's alignment options should appear here.
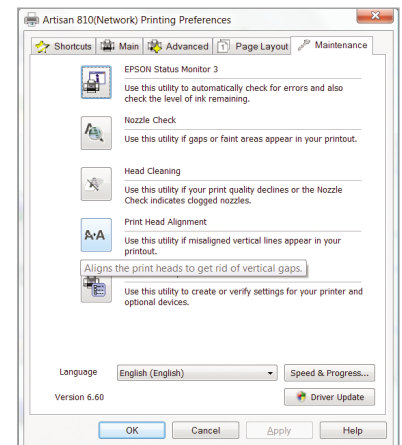
Modern printers such as the Epson Artisan 810 provide access to maintenance utilities that can clear nozzles, align the print heads, and more.

Printers

Question: I'm shopping for a new ink printer. Is it better to buy an ink printer that uses lots of tiny cartridges, or should I stick with a three-tank design or even go with a single integrated color tank?

Answer: Ink printers normally rely on the industry-standard CMYK (cyan, magenta, yellow, and black) color palette, but these color resources are provided several different ways. Some single-cartridge designs put the colors in a single cartridge (black is left in a separate cartridge), while other designs spread out the colors among three different cartridges (black is a fourth separate cartridge).

A more recent development uses two different shades of each color.

Because nobody uses color the same way, it's almost always better to have more cartridges rather than fewer. Ink level monitoring will tell you which colors are low, so it's an easy matter to buy *only* those replacement cartridges as the need arises.

This approach to selecting a printer doesn't make the ink any less expensive overall, but it helps you by letting you buy only what ink you need when you need it.

Microsoft Outlook 2007

Question: I'm always scheduling via Outlook, so how do I make Outlook 2007 start in its Calendar mode rather than its Inbox mode?

Answer: Microsoft Outlook 2007 can be configured to start in any functional folder. To change startup folders, launch Outlook, click Tools, select Options, choose the Other tab, and then click the Advanced Options button in the General area. Find the Startup In This Folder entry and click the Browse button, then select the folder where you want Outlook to open. Click OK to save your changes. Now, close Outlook and launch it again—it should start in the folder that you selected.
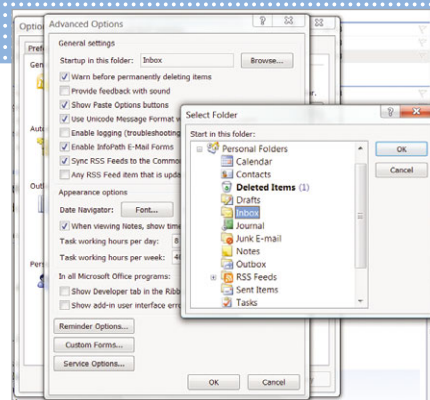
When Outlook 2007 starts up, it can display folders (other than the inbox) that may better meet your needs.

Docking Stations

Question: Is it worth buying a docking station to go along with my new laptop? What's the justification for a docking station?

Answer: A docking station is worthwhile when you plan to use the laptop as a desktop replacement. For example, if you want to continue using a large display, full desktop keyboard, conventional mouse, external speakers and so on, you'd connect those accessories to the docking station. Then you continue to use the desktop peripherals anytime you plug the laptop into the docking station.

However, if you plan to use the new laptop on the road and away from desktop peripherals, a docking station may be a waste of money. Also, today's large laptops provide ample screen space, full keyboard support, internal speakers, and other niceties that really don't require desktop accessories. If you plan to acquire a larger desktop replacement laptop, it may not be worth the trouble of a docking station.

Skype

Question: How can I test Skype to see that my audio and video are working before I make a video call?

Answer: The Skype service provides a series of diagnostic tools that allow users to verify their audio and video elements and even make a test call. Launch and log in to Skype, then click Tools, select Options, and choose Audio Settings from the left menu. This dialog box will show you the level of microphone input, speaker output, and ring volume. Make sure to select the proper audio input and output—the default is usually OK unless you have more than one microphone or speaker/headset connected to your PC.
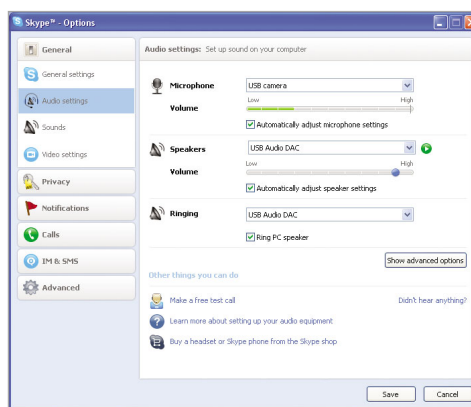
Skype provides configuration and diagnostic tools that allow you to set up and test audio and video operation before making a call.

Go ahead and test each audio attribute. If you want to check the camera, just click Video Settings in the left menu and watch for video in the window.

This lets you adjust the camera's direction and light levels to achieve the best video quality. Now, go back to the Audio Settings option and click Make A Free Test Call. This connects to the Skype service and allows you to record a brief message which is played back for you. If you hear the playback of your own message, you know that everything is configured correctly. Otherwise, you can make adjustments and change the configuration as needed.

Anatomy
Of A Notebook

U nless your laptop's primary function is to look thin and pretty, it probably has an array of ports and slots around its edges. These can be quite useful—that is, assuming you know what they all do.

Let's take a tour around a typical notebook. We'll start with the parts you use the most.

Mouse pointer. Variously known as a joystick or thumbstick, a mouse pointer gives you an alternate way to direct the on-screen pointer.

Trackpad. To use this mouse substitute, slide your fingers across its face to move the pointer on the screen. The trackpad's buttons act as mouse buttons, but may be programmable.

Memory card reader. This model has a slot for SD (Secure Digital) flash memory cards along the front edge.

PC Card. This slot is for PCMCIA (Personal Computer Memory Card International Association) and CardBus expansion cards. Both have been superseded by the newer ExpressCard standards.

Wireless. Many laptops have switches or keystrokes to turn their Wi-Fi adapters on or off. Turning off the wireless antenna when it isn't needed can make your battery charge last longer.

FireWire. This port lets you connect 400Mbps FireWire (IEEE 1394) devices such as external drives and camcorders.

USB. These ports provide enough power to run a portable hard drive without an AC adapter. Fast USB 3.0 ports look almost exactly like these USB 2.0/1.1 jacks, and are backward-compatible.

Optical drive. A DVD burner is the most common type, but mid- to high-end notebooks may have BD (Blu-ray Disc) playback or burning capabilities. The button at center right opens the drive tray; the button at the bottom right ejects the entire drive for replacement.

Audio. The headphone output jack lets you listen to movies, music, and podcasts in privacy. You can also use it with the microphone input jack and a suitable headset to make VoIP phone calls, such as with Skype.

Screen. Virtually all laptops have LCD screens, but some use LEDs (light-emitting diodes) as backlights instead of CCFLs (cold cathode fluorescent lamps). LED backlights can provide longer battery life, higher brightness, and sometimes greater contrast.

Keyboard. Having fewer keys than desktop keyboards, notebook 'boards often come with an extra FN (function) key, which enables additional combination keystrokes.

Fingerprint scanner. Some notebooks incorporate biometric authentication devices so that only the authorized user can log on.

Modem. This port lets you use dial-up Internet service through a telephone jack.

LAN. Also called an Ethernet port, this jack lets you use a wired local area network and/or a broadband modem.

Battery. Typically, there's a latch on the underside of the notebook that releases the detachable battery for replacement.

Power. The laptop's power adapter attaches here.

DisplayPort. This port lets you connect the laptop to a compatible monitor. Some notebooks have HDMI (High-Definition Multimedia Interface) or DVI (Digital Visual Interface) ports.

VGA. You can connect an older monitor to this 15-pin Video Graphics Array port for analog video output.
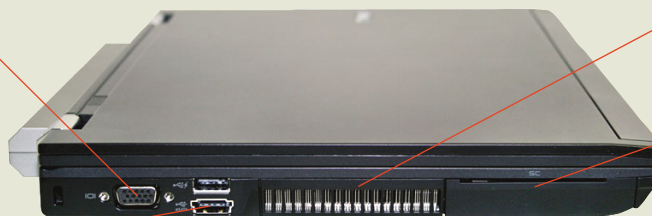
Heat exhaust. A fan moves cooling air through the notebook and expels it here.

Smart Card. This slot is mainly for access cards used by corporate and government workers.

eSATA. An external SATA (Serial Advanced Technology Attachment) port uses a connector that's slightly different from SATA to carry data from compatible external drives. eSATA is fast, but USB 3.0 is faster and easier to use. Speaking of USB, this particular eSATA port actually doubles as a USB 2.0 port to save space.

How To Fix Common Problems With
Windows Media Center

With each Windows generation, Microsoft brings us a bit closer to having a one-stop, all-you-can-play media buffet accessible from any display in your home. If you enjoy music, photos, and video, then the Media Center interface can make your library accessible and enjoyable. Naturally, though, anything as much fun as Media Center is bound to have a few bugs and hiccups waiting in the background. We've detailed some of the most common problems encountered with Windows Media Center and offered fixes to get your media enjoyment back online.

Problem: **The Windows Vista implementation of Media Center pops up an error reading "Media Center has stopped working."**

Solution: There are two documented fixes for this issue. First, there's a chance that incorrect versions of important system files may be in use. To check and remedy this, click Start and type **cmd** in the Start Search field. In the resulting list that pops up, under Programs, right-click the cmd item and select Run As Administrator. Enter your admin password if prompted and then click Continue. At the command prompt, type **sfc /scannow** and press ENTER. Once the scan (and any attempted repairs) completes, check to see if the error message reappears when you start MCE (Media Center Edition).

If the error persists, the second solution has a decent track record of success. Click Start, type **run** in the Start Search field, and click Run from the resulting Programs list. Confirm your password if asked. In the Open dialog box, type **%systemdrive%\programdata\microsoft\ehome** and click OK. On the right side of the window, you'll see a file called Mediacenterdatastore.db. Right-click this file and select Delete. Click Yes to confirm. You should now be able to start MCE.

Note that under Windows 7, the Mediacenterdatastore.db file no longer appears. Instead, there is a file called Mcepg2-0.db. We haven't seen this error happen under Win7 yet, but if it does, you may want to try cutting and pasting the Mcepg2-0.db file out of its regular folder and into a temporary location. Once the file is gone, see if that fixes the problem.

Problem: **The Status line of the Windows Media Center Extender Manager on your computer (available by clicking Start, Windows Media Center, Tasks, Settings, and Extender) reports that the Xbox 360 is set up but not available.**

Solution: Start by checking the obvious because simply having the Xbox 360 powered off will generate this message. Check that the console is still turned on and so forth.

If the console's power is on, check the network connection. In the Xbox 360 Dashboard, navigate to the System Settings area, select Network Settings,

Configure Network, go to the Basic Settings tab, and select IP Settings. Write down your local IP (Internet Protocol) address, such as 192.168.1.8. With the IP address in hand, go back to your Vista or Win7 PC, click Start, and type **cmd** into the Search field. Now, enter a ping command for your console's address, as in **ping 192.168.1.8** and press ENTER. If you see a series of "timed out" replies, then you have a network problem. If you see a series of millisecond times, then the two machines are communicating.

MCE may stop communicating with your Xbox 360 if there is a problem in your network configuration. Confirming the 360's IP address is an early step in troubleshooting.

In the latter case, you may have experienced a temporary network glitch that has since cleared up. Re-establishing the Media Center association may solve the problem. From the Xbox Dashboard, go to My Xbox, System Settings, Computers, Windows Media Center, and Disconnect. Now, select Setup and run through the setup process again.

If none of these sounds likely, the problem may stem from a Windows update patch. You may want to try rolling back to a prior system restore point and see if that solves the problem. If none of this works, you're probably facing several phone calls to your PC vendor, router vendor, Xbox support, and more.

Problem: My Windows Media Center Extender (in particular, my Xbox 360) won't play some music, videos, and TV programs.
Solution: There are two very common reasons for this, and you see it crop up on all kinds of extenders, not just the Media Center variety. The first possibility is that the file you're attempting to play is protected with DRM (digital rights management). This is especially common for iTunes downloads. To prevent illegal copying, the file is locked for playback only on certain approved devices. You might also see DRM-related problems if the extender is physically too distant from the PC playing the file.

The other common reason for this problem is the lack of a proper codec, meaning that the extender doesn't have the right software loaded to translate the file's format into a format it can display. For a long time, Windows devices didn't get along with music files using the AAC (Advanced Audio Coding)

Windows Media Center can make your media library look accessible and gorgeous, but not all of your files may make it to your Extender without the proper patches.

format common to Apple. Now, if you have an XBL (Xbox Live) account, XBL updates should take care of AAC compatibility. If you're not on XBL, go to tinyurl.com/2grdjd and follow the instructions for updating your Xbox via a flash drive or CD/DVD. (In fact, you can even play files on a USB-connected iPod through your Xbox 360 by installing the free Optional Media Update. Go to Game Marketplace, All Games, and select O from the alphabetical list. Select Optional Media Update and Optional iPod Support.)

Problem: My Windows Media Center remote stopped working.
Solution: There are many brands of Media Center remotes, and each may have its own particular foibles. In general, though, if a remote is working normally for a while and then one day stops, there are typically only a few likely problem sources. Tackle the obvious fixes first. Are the batteries charged and/or inserted with the proper orientation? Just because you *think* the batteries should be fresh doesn't mean they necessarily are. Also, make sure there are no other infrared-based devices that have been introduced into the MCE remote's vicinity. Although competing infrared signals won't usually prevent a remote signal
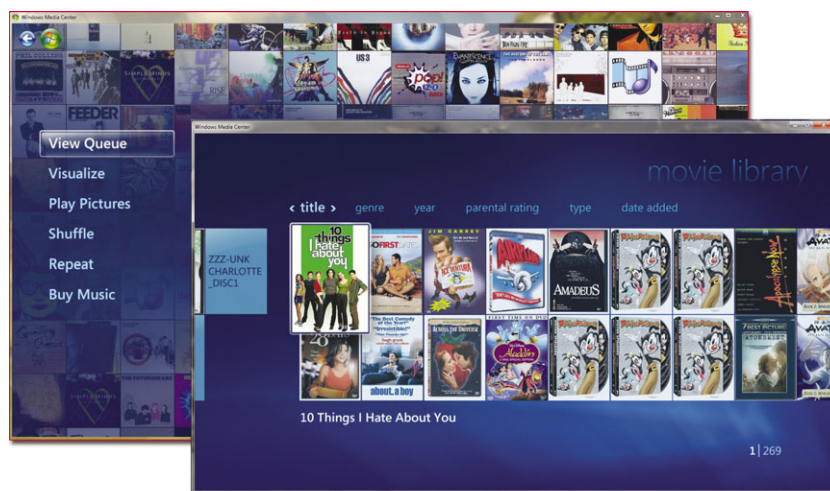
There are many reasons why a Media Center remote might stop working, but competing infrared devices or a software conflict top the list.

Problem: Media Center 2005 keeps reporting "Messenger Failure" even though I've never used Windows Messenger on this system.

Solution: One of Microsoft's security patches (MS08-050) for WinXP specifically targeted a vulnerability in Windows Messenger 4.7 and 5.1 that would allow certain ActiveX scripts to give an outside hacker a scary amount of control over a compromised system. Although this remains an important and desirable fix for WinXP users, the update also tended to result in this Media Center "Messenger Failure" message.

There are a couple of fixes for this error, but the most comprehensive is the following Registry modification. (As always, set a system restore point before even breathing on your Windows Registry, because a false step could impair the OS' basic functionality. To set a restore point, click Start, All Programs, Accessories, System Tools, System Restore, and then follow the System Restore wizard's instructions.)

Click Start, click Run, enter **regedit**, and click OK. Now, use the navigation tree to locate this key: HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Media Center\Settings\IMSettings. Find the fEnableIM item, and under its DWORD value, change the value from 1 to 0.

Note that this fix only applies to the current user. If there are multiple user accounts on the PC, you will need to apply and save this change for each user account affected. ∎

from working entirely, we have seen instances first-hand of interfering signals blocking some remote commands or creating unwanted commands.

Most likely, though, unless the remote control itself has sustained physical damage, you have a software issue related to drivers. In Vista/Win7, click Start, right-click Computer (My Computer in Windows XP), and click Device Manager (in WinXP click the Hardware tab and then click Device Manager). Look to see if you have an unknown device or a known USB device with a yellow-circled exclamation point next to it. This means the system "sees" the device but can't load the drivers to correctly recognize and support it. The driver may have become corrupted, or there is a conflict with another driver. Right-click the malfunctioning device and select Disable. Right-click it again and select Enable and then see if this allows the device to be recognized. If not, right-click the item, select Uninstall, and click OK in the pop-up box to confirm removal. Now, go to the Device

Manager menu and select Action, and Scan For Hardware Changes. This will redetect your USB device and potentially install it correctly.

If you still have an error, unplug all attached USB and FireWire devices, leaving only the remote's IR (infrared) receiver attached, and reboot. If this restores the remote's functionality, begin adding back your disconnected devices one by one until the conflicting device is discovered. Make sure that you've visited the support sites for each of these devices—especially the MCE remote—and have the most current driver installed.

BY WILLIAM VAN WINKLE

A WinXP vulnerability patch targeted at Windows Messenger can cause this error, but a Registry fix will make amends—assuming you have no desire to use Messenger.

How To Install
A Wireless-N Network

You've probably heard about how much faster 802.11n is than 802.11b or 802.11g. After all, it only took the IEEE (Institute Of Electrical and Electronics Engineers) a little more than seven years to finalize the standard. How much faster is 802.11n? Wireless networks with it can theoretically deliver data at up to 300Mbps (megabits per second), while 802.11g is limited to 54Mbps and 802.11b works at only up to 11Mbps. Besides faster file transfer, 802.11n's faster wireless interface also makes it possible to reliably stream media, such as movies and MP3s, over your home network. Here, we'll detail how to install and set up an 802.11n network in your home.

Benefits Of N

In addition to increased speed, 802.11n introduces MIMO (Multiple Input/Multiple Output) technology that improves the range and reception of the wireless signal. MIMO utilizes multiple antennas that can communicate with

each other to capture the wireless signal. The technology is especially useful when receiving data that's partially broken up due to the construction materials and furniture in your home. The antennas can determine which path offers the least interference and might automatically adjust to reduce intermittent signal loss. For the multipath signal to work, both your wireless router and Wi-Fi adapter must support MIMO.

Trendnet's TEW-671BR features MIMO technology to increase the range and reception quality of your wireless network.

Similar to 802.11a/b/g wireless signals, the actual speed you'll see from 802.11n will vary depending on the distance between the router and computer, as well as the amount of interference, such as from signal obstruction or cordless phones on the same wireless frequency, in your house. Generally, you can expect 802.11n to deliver data transfers around 100 to 125Mbps. By comparison, in the real world, 802.11b typically delivers around 5Mbps, and 802.11g provides around 25Mbps. Note that 802.11n is backward-compatible with 802.11b/g devices, because the standards all operate in the 2.4GHz range. Thus, if your PC has an 802.11b or 802.11g Wi-Fi adapter, it can receive 802.11n signals, but the transmission speed will be limited (11Mbps for 802.11b and 54Mbps for 802.11g) by the receiving speed of your old Wi-Fi adapter.

Dual Band

802.11n wireless routers and adapters are also sold in dual-band models, which essentially create two wireless networks that broadcast over the 2.4GHz and 5GHz frequencies. The primary advantage of having two wireless networks is that you can opt to use the 5GHz frequency when the 2.4GHz wireless network is busy or experiencing interference. For example, if you want to stream an HD video, which can use up most of the available network bandwidth, you can connect to the 5GHz

Wi-Fi dongles, such as the Wireless N USB 2.0 adapter from Trendnet seen here, are the easiest way to add 802.11n to your setup.

frequency network, so that others on your home network can surf the Web or transfer files (using the 2.4GHz frequency) without interrupting the playback of your video. The only downside is that the 5GHz band has less range because it's a higher frequency signal and is easily weakened by walls and other obstructions. Thus, make sure your PC is receiving a strong signal before you begin regularly using the 5GHz band.

What You'll Need

Compared to many other PC projects, setting up a wireless network requires relatively few hardware components. All you'll need is a broadband Internet connection, an 802.11n wireless router, and a Wi-Fi adapter that supports 802.11n for each PC on your home network. USB Wi-Fi dongles are often the easiest way to add 802.11n to a computer, because you can simply attach the dongle to a free USB port on your PC. However, if range is a concern, you may need to invest in a larger adapter that offers multiple antennas and support for MIMO technology. For those with a desktop computer, you can invest in an add-on card that fits into a free PCI (Peripheral Component Interconnect) or PCI-E (PCI-Express) slot on your motherboard. If you want to improve Wi-Fi reception on your laptop and have a free PCMCIA (Personal Computer Memory Card International Association) card slot, look for an 802.11n PCMCIA adapter that supports MIMO.

Router Location

With wireless router and Wi-Fi adapter in hand, you're ready to go.

First, consider where to place the wireless router. Typically, you should select a location near the middle of the house—especially for those with large residences—so that there aren't dead zones on one side or an upper or lower level of the house. Of course, if there are limited hookups for connecting to your cable or DSL (Digital Subscriber Line) service, you may only have a few placement options.

You may also want to consider whether you'd prefer to have wired access, which is still more reliable and often faster than 802.11n, to an existing desktop PC. Nearly all wireless routers have a few wired ports, so you save yourself from running Ethernet cable across your house by placing the wireless router next to a desktop PC. Whatever location you choose, keep in mind that you'll need a free AC wall outlet to power the wireless router. If, after you've placed the router, Wi-Fi reception seems to cut in and out in certain locations, read our "Reliable Wi-Fi Access" sidebar for ways to avoid interference.

Make The Connections

First, take the Ethernet cabling running from your broadband modem and connect it to the WAN (wide-area

Enter the name of your wireless network in the SSID field.

network) port on your wireless router. Next, and this may seem counterintuitive for a wireless network, you'll need to run Ethernet cable from one of the router's LAN ports to an Ethernet port on your computer. The temporary wired connection is necessary to set up the wireless signal, because wireless routers aren't configured to broadcast Wi-Fi out-of-the-box. If you have a laptop, it's ideal for the temporary setup, because you can move the laptop to wherever the router is located, rather than stringing Ethernet cable all the way to your desktop computer.

Once you've connected the PC to the wireless router, plug in the wireless router's power adapter to the AC wall outlet. Your computer should automatically detect a connection to the Internet. If you don't automatically connect, look at lights on the router to check whether the ports are active. Typically, wireless routers have LEDs corresponding to the numbered ports on the back of the router. Try reattaching the Ethernet cables to the WAN and LAN ports.

Next, access the router's Web configuration page by opening your Web browser and entering the Web address listed in the users manual. Most vendors use 192.168.10.1 as the default address. You'll then need to enter the username and password listed in the users manual. By default, Admin is generally used for both the username and password.

Set Up The Wi-Fi Signal

Each wireless router's setup will vary slightly, depending on the options in the Web configuration tool, but, typically, there's a Wireless section where you can manage your Wi-Fi settings. For example, Trendnet's TEW-671BR ($127.99; www.trendnet.com) dual-band 802.11n router includes tabs for Wireless 2.4GHz and Wireless 5GHz. When we clicked the Wireless 2.4GHz tab, the TEW-671BR opened a window with basic configuration options, which included the SSID

(Service Set Identifier), Band, and Channel—settings you'll find on most Wi-Fi routers.

The SSID is the name of your wireless network. The Band field features a drop-down menu that allows you to select whether the wireless frequency is broadcast in only 802.11n, only 802.11b/g, or a mix-mode where the router broadcasts in 802.11b/g/n. It's a good idea to select the mixed mode option, because computers without support for 802.11n can still access the network. In Mixed Mode, 802.11n devices will suffer a slight drop in performance, such as a drop from 125Mbps to 115Mbps, that won't be easily noticed. The Channel refers to the specific frequency the router broadcasts; most wireless routers feature an Auto option that will pick the most interference-free channel.

Security

Now that your 802.11n wireless router is broadcasting, you need to protect the wireless network from intruders. Unlike a wired network, any PC that can detect the Wi-Fi signal can attempt to log in. All 802.11n wireless routers offer a few types of encryption, which is a technique that scrambles the signal so that only people with the key or passphrase can connect.

You can select from WEP (Wired Equivalent Privacy), WPA (Wi-Fi Protected Access), and WPA2. WEP is generally considered the least secure encryption standard, because it's been around for a while and hackers have developed many programs to quickly discover your network key. WPA2 is a 256-bit encryption version of the WPA standard, and it allows you to create a passphrase using plain words, rather than long (sometimes up to 64 numbers), nearly impossible to remember key codes. To configure encryption on Trendnet's TEW-671BR, we clicked the Encryption drop-down menu—which offered WEP, WPA Preshared Key, and WPA RADIUS—and selected WPA Pre-shared Key.
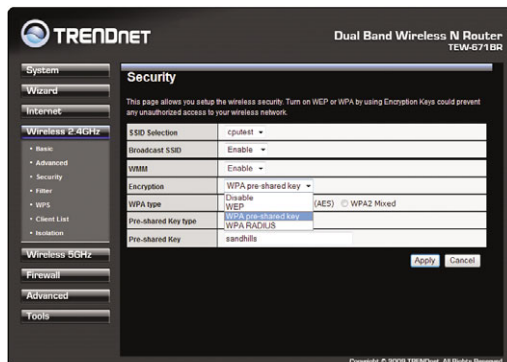
Once we selected WPA, the TEW-671BR added a field to the Web configuration utility for WPA type with radio options for WPA2 (TKIP), WPA2 (AES), and WPA2 Mixed mode. WPA2-TKIP (Temporal Key Integrity Protocol) is an older standard that's compatible with aging Wi-Fi adapters, which may not support AES (Advanced Encryption Standard) encryption. Most experts believe the AES standard to be more secure than TKIP. Finally, we selected Passphrase from the Pre-shared Key Type drop-down menu and entered the password.

Install The Wi-Fi Adapter

With our 802.11n Wi-Fi network setup, we located Trendnet's Wireless N

Under the security section of the wireless router's configuration page, you can set up how your 802.11n network is secured.

USB 2.0 TEW-624UB adapter ($61.99; www.trendnet.com) and plugged the Wi-Fi dongle into the USB port on the front of our test PC. Windows 7 was able to immediately locate the driver for it, but if your PC doesn't, you can attach an Ethernet cable to create a wired connection and visit the manufacturer's Web site to download the driver for your adapter and version of Windows. Once the driver is installed, you can search for and connect to the 802.11n Wi-Fi network.
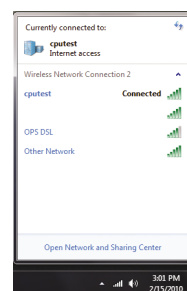
In Windows 7, you just need to click the networking icon, select the network's name, and press Connect to jump onto your home network.

In Windows XP, click the Start menu, select Control Panel, and choose Network Connections. Double-click Wireless Network Connection, choose your Wi-Fi network, and enter your authentication. Windows Vista users can click the networking icon in the Notification Area and select Connect To A Network. In the Connect To A Network window, look for your Wi-Fi network under Wireless Network Connections, select it, press the Connect button, and enter the network passcode. In Win7, simply click the networking icon in the Notification area, choose your network from the Wireless Network Connection list, and click the Connect button. Provide the passcode for your network security setup and you are done. ▐▌

BY NATHAN LAKE

Reliable Wi-Fi Access

Wireless signals are most efficient when they are traveling in a straight path. Dense material, such as drywall, glass, metal, and solid wood, causes the signal to move at an angle and reduces the chances that it will accurately arrive at your computer. For a dependable signal, you should also place the wireless router away from devices that produce radio frequencies. Common interference culprits include radios, baby monitors, microwaves, Bluetooth devices, and cell phones. If range is an issue because you're forced to place the DSL or cable modem in one location, you can run Ethernet cable from the broadband router to a more central or interference-free area. ▐

EXAMINING ERRORS

COMPILED BY THE SMART COMPUTING STAFF

Error messages rarely provide clear explanations of the problems they represent. Some are riddled with technical jargon. Others have seemingly indecipherable codes. And some tell you exactly what the problem is but don't tell you how to solve it.
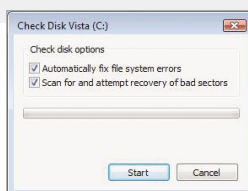
Each month, we take the mystery out of error messages that flummox our readers. Every solution includes the message in its original form, a plain-English translation of that message, and step-by-step instructions for solving the problem.

If you have questions about an error message, email us (errormessages@smartcomputing.com), and we'll try to decipher it. Tell us what version of Windows you are using, give the full text of the error message, and provide as many details in your email as possible. Volume prohibits individual replies.

WINDOWS VISTA

Error

The backup did not complete successfully. An error occurred. The following information might help you resolve the error: The file or directory is corrupted and unreadable.

If you suspect a hard drive problem, run Windows Vista's Check Disk utility.

Translation: You may encounter this error message when backing up your files in Windows Vista. In particular, the error message is likely to crop up after you click the Back Up Files button in the Backup And Restore Center. It may mean that your hard drive (or certain files on it) has errors preventing the backup from taking place.

Solution: You can resolve this problem by running Vista's Check Disk tool. Click the Start button and then click Computer. When the Computer window opens, right-click the hard drive that runs Vista. (This is typically the C: drive. The drive's icon may include a Windows logo.) Click Properties.

When the Properties window opens, click the Tools tab. Click the Check Now button that appears in the Error-Checking section and then click the Continue button if the User Account Control window appears.

At this point, you have three options. You can scan for file system errors, physical hard drive errors, or both. Check both boxes in this window to ensure that Check Disk catches whatever is causing trouble. Click the Start button. If a Windows Can't Check The Disk While It's In Use message appears, click the Schedule Disk Check button and then restart the computer.

When the computer restarts, a black window will appear, as will a message that a disk check is about to begin. The check takes awhile to complete. (Our test system, with a 200GB hard drive, took a little more than an hour to finish the check.)

Once the check completes, you should be able to run the backup without seeing the error message again. ▐
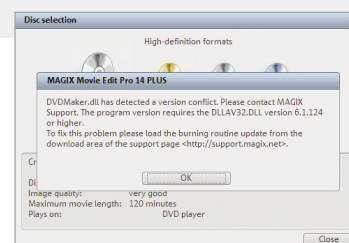
MAGIX MOVIE EDIT PRO 14 PLUS

Error

DVDMaker.dll has detected a version conflict. Please contact MAGIX Support. The program version requires DLLAV32.DLL version 6.1.124 or higher. To fix this problem please load the burning routine update from the download area of the support page <http://support.magix.net>.

Translation: If you have recently installed Magix Movie Edit Pro 14 Plus, this error message may appear. It typically opens when you click DVD in the Disc Selection menu. It means that you don't have the latest burning routine patch.

Solution: You can solve this problem by downloading a free burning routine patch from Magix. Visit www.support.magix.net. If you have used Magix's support before, log in to the site with the username and password you created when you first registered. If you haven't registered yet,

click the link next to the login fields to start the free registration process.

Once you sign in to the Support section, click the Download link under Start. On the resulting screen, click Tools. Next, click Magix Burn Routines and then click Magix Burn Routines 2009. Scroll to the bottom of the page and then click the Start Download button.

Once the download completes, close Movie Edit Pro 14 Plus and then double-click the downloaded file to start the patch installation. When it completes, you can use the software without encountering the error message. ▐

MOZILLA FIREFOX

Error Could not initialize the application's security component. The most likely cause is problems with files in your application's profile directory. Please check that this directory has no read/write restrictions and your hard disk is not full or close to full. It is recommended that you exit the application and fix the problem. If you continue to use this browser session, you might see incorrect application behavior when accessing security features.
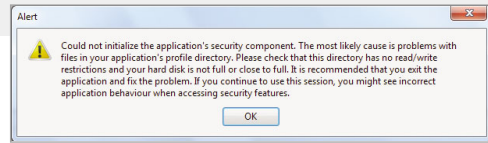
Translation: This error message may appear if your computer runs the Mozilla Firefox Internet browser. The message appears when Firefox starts. It means that a file in your browser's history is preventing it from operating properly.

Solution: According to Mozilla, there are several things you can do to troubleshoot the problem, including making sure that your PC's hard drive has enough free space, checking certain file permission, replacing a file, and creating a new profile. We'll show you how to perform these troubleshooting steps.

Check your storage. Your hard drive's free space likely isn't the problem (it must have less than 1MB of free space to cause this error), but you can check easily. Click Start and Computer (My Computer in Windows XP). Windows Explorer displays icons for your hard drives as well as info about their free storage space. (Click a drive and look in the Details section in WinXP.) If this window indicates you have less than 1MB of storage space, delete some large files to free space. (Keeping at least 10% of your drive's overall capacity free is a good rule of thumb for maintaining strong PC performance.)

Fix or replace. If hard drive storage isn't the problem, find the cert8.db file and make sure it's not causing trouble. In Firefox 3.6, click Help and then Troubleshooting Information. Next, click the Open Containing Folder button. Scroll to cert8, right-click the file, and click Properties. Look for the Attributes section at the bottom of the General tab. If the Read-Only box is checked, uncheck it and click OK.

If this doesn't solve the problem (or if the box is already unchecked), delete the cert8 file. When you restart Firefox, it will create a new cert8 file and the problem should be resolved. If neither of these possible fixes do the trick, create a new profile. See tinyurl.com/yg5kxwp for more information. ▮

ROXIO CREATOR 2010

Error No permission to launch

Translation: This error message may appear if your PC runs Roxio Creator 2010, which is a suite of applications that let you manage and edit digital audio, photos, and videos. You'll see the message when you start one of the suite's programs. It means that a file in one of Roxio's subfolders is preventing the programs from running correctly.

Solution: According to Roxio, you can solve this problem by deleting the Sonic subfolder from your hard drive. Close all Roxio programs before you delete this subfolder.

In WinXP, click Start and My Computer. Double-click the hard drive that contains your operating system (probably C:) and open DOCUMENTS AND SETTINGS\ALL USERS\APPLICATION DATA. (If you don't see this folder, click Tools, Folder Options, the View tab, and the Show Hidden Files And Folders radio button. Click OK, and the folder will appear.) Delete the Sonic folder and skip the next paragraph.

In Vista/Win7, click the Start button and Computer. Double-click the hard drive that contains your operating system (probably C:) and open the ProgramData folder. (If you don't see the ProgramData folder, click Organize, Folder And Search Options, the View Tab, and Show Hidden Files, Folders, And Drives [Show Hidden Files And Folders in Vista]. Click OK; the folder will appear.) Delete the Sonic folder.

Deleting the Sonic folder moves it to the Recycle Bin. (An icon for the Recycle Bin is on the Desktop.) It's out of the way, and you should be able to restart Roxio without encountering the error, but the folder will remain in your Recycle Bin until you empty it. To do so, right-click the Recycle Bin and select Empty Recycle Bin. For more information about this problem, visit kb.roxio.com and enter **000243CR** in the search field. ▮

Error Messages Online

Error Messages

If you're getting a specific error message, this is the place to start.

Browse Error Messages Alphabetically (Try this first.)
Search By Error Message Text

Don't see your error message here? Visit the *Smart Computing* Tech Support Center (www.smartcomputing.com/techsupport) to search our database of common error messages and PC problems.

How To Get Rid Of . . .

You didn't intend to, but somehow you managed to download malware onto your system. It can happen to anyone, but how do you get rid of it? If your computer has been infected with a pesky worm, virus, or other malicious intruder that you don't know what to do about, check out our How To Get Rid Of articles in the SmartComputing.com Tech Support Center. You'll find numerous articles on how to remove worms, viruses, spyware, adware, and other nuisances from your system.

1. Log in to SmartComputing.com. Then click the Tech Support Center link on the home page.

2. Once in the Tech Support Center, scroll down to the Security & Privacy section. Click the How To Get Rid Of link.

3. Click the link for the item you are trying to remove. You will then be taken to a full article that provides a description of the item and tells you how to tell if it's on your PC and how to eliminate it. Some articles provide helpful links to outside sources (Symantec, Microsoft, etc.) that can provide additional information to help solve your problem. Check out these helpful articles today!

Tech Support Center

- Error Messages
- Solutions Knowledgebase
- Basic Troubleshooting Article
- Security & Privacy
- How To Get Rid Of
- Backups & Data Recovery
- Preventive & Regular Mainter
- Networking & Communication
- Articles On How To Install … Just About Anything
- Driver Education
- Other Helpful Tech Support Tools

Security & Privacy

It's called **malware**—destructive viruses and worms, intrusive spyware and adware, and nuisances like spam email and unwanted pop-ups. (Read "A Malware Primer.") Check our Web log for the latest news and read our Basic Troubleshooting articles to learn how to diagnose and combat them.

How To Get Rid Of …
We'll tell you what to do to eliminate malware programs from your computer.

Web Log:

IE code execution bug can bite older Windows machines
Microsoft's security team is investigating a security vulnerability in older versions of Windows that allows attackers to execute malware on end user …
Dated:3/1/2010 3:55:26 PM
More ▶

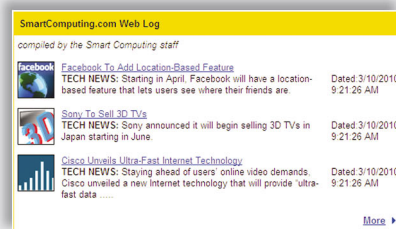Subscribers—make sure to add these helpful How To Get Rid Of articles to your Personal Library by clicking the Add To My Personal Library link in the upper right of the article. Simply log in and when you find an article you would like to keep, click the Add To My Personal Library link at the top of the page. Create as many folders as you like to keep your information organized and accessible.

Wilhelm Schickard

On April 22, 1592, Wilhelm Schickard was born. According to the *Smart Computing* Encyclopedia, Schickard modified previously developed machines to create a calculator: "Schickard's machine, invented in 1623, may have been the first mechanical calculating device ever developed."

Old News

If you missed the big news in the technology world, check

SmartComputing.com Web Log
compiled by the Smart Computing staff

facebook | Facebook To Add Location-Based Feature
TECH NEWS: Starting in April, Facebook will have a location-based feature that lets users see where their friends are. | Dated 3/10/2010 9:21:26 AM

Sony To Sell 3D TVs
TECH NEWS: Sony announced it will begin selling 3D TVs in Japan starting in June. | Dated 3/10/2010 9:21:26 AM

Cisco Unveils Ultra-Fast Internet Technology
TECH NEWS: Staying ahead of users' online video demands, Cisco unveiled a new Internet technology that will provide "ultra-fast data … | Dated 3/10/2010 9:21:26 AM

More ▶

out the Web Lob Archive at www.smartcomputing.com. Here, you'll find a compilation of the biggest tech news of the past month.

Extension Explanations

That little group of letters that follows a file name can be both helpful and befuddling. Learn what they mean, and you can figure out how to open a file (or whether you want to open it at all), but figuring out what they mean isn't always easy. Click the List Of File Extensions With Explanations link at our Tech Support Center to start unraveling the riddle.

Smart Computing's Daily Fun Fact & Stat

Millennials Love
Social Networks

Millennials, teens and twenty-somethings, are a tech-connected bunch. According to a study from the Pew Research Center, 75% of 18- to 29-year-olds surveyed reported having a profile on a social networking site, and 20% have posted a video of themselves online. Fifty percent of 30- to 45-year-olds, 30% of 46- to 64-year-olds, and just 6% of those 65 and older have a social networking profile.

.ACL .DAP .IRTP
.ADR .DC5 .JBD
.AHS .DKB .JPEG
.ANM .EMF .KBD
.ART .EPSI .KEY
.AUX .EXE .LGO
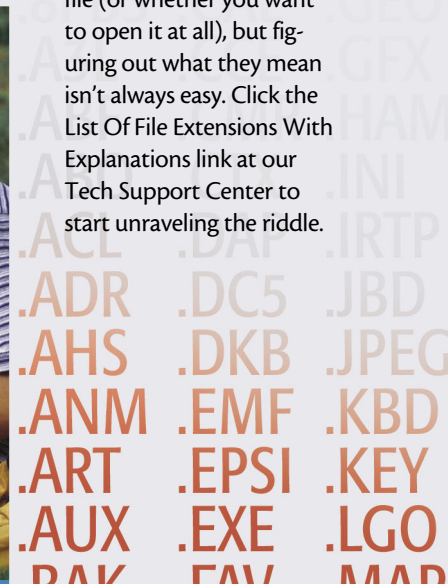
Pest Control
Remove Stubborn Bugs

I f your computer has a virus its security software can't detect or remove, the time has come to roll up your sleeves and go after the bug yourself. Each month, we tell you how to manually remove some of the most disruptive malware on the Internet. In some cases, software publishers provide free tools that root out deeply entrenched viruses. We show you where to find (and how to use) these removal tools.

PC MightyMax

Description. It seems our computers never run as well as they do with a fresh install of Windows. This is partly due to all the applications we add and remove and the often poor uninstall tools that accompany them. Registry cleaners are a popular way to remove some of the junk that poor uninstallers tend to leave behind. Good Registry cleaners can sift through the junk, help eliminate errors, and keep your PC running smoothly. Unfortunately, you simply can't trust some cleaners.

At first glance, PC MightyMax might look like a trustworthy application.

The application's home page includes graphics that indicate it is 100% spyware-free, and it's included in CNET's Download.com service. However, a quick Google search for PC MightyMax indicates widespread discontent among users. While the software may be spyware- and malware-free, it comes with its own set of issues. The free version only scans for errors. If you want to fix any errors, you'll need to buy a license. (PC MightyMax's "best" licensing deal is $29.95 for a 14-day license.) Suspiciously, the free version found 91 issues with our freshly installed Windows XP system. To make matters worse, PC MightyMax constantly runs in the background popping up warnings

PC MightyMax 2010 managed to find 91 total errors on a fresh Windows XP install, which makes us a bit suspicious. Note that if you want to repair the errors, you'll need to pay for a license, which costs $29.95 for a 14-day license.

and alerts and prompting users to pay for an upgrade.

Once you've tired of PC MightyMax and its pop-up alerts, you'll learn that this application can be difficult to uninstall. While PC Mighty-Max 2010 seemed to uninstall without any issues on our test PC, Internet reports suggest that older versions are difficult to remove.

How to tell if PC Mighty-Max is on your PC. The good news is that PC MightyMax isn't sneaky, at least not about its presence on your system. Unlike other applications that install themselves without your knowledge, you probably remember downloading and installing PC MightyMax. Even if another user installed PC MightyMax on your system (perhaps the kids were trying to be helpful), PC MightyMax doesn't exactly hide from users. Its frequent pop-ups and alerts make it pretty obvious that the application is installed on your system.

How to remove PC MightyMax with Malwarebytes. While uninstalling older versions of PC MightyMax might not be easy, this supposed security application is identified as malware by a number of trusted anti-malware applications. One such trusted program, Malwarebytes, can help automate the removal process. You can download a free version of Malwarebytes at www .malwarebytes.org.

After you've installed Malwarebytes, make sure you've updated its definitions. In the main Malwarebytes Anti-Malware window, click the Update tab and click the Check For Updates button. (Alternatively, you can opt to
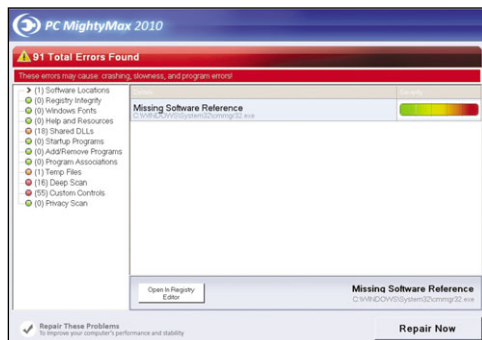
update the definitions after the Malwarebytes installer finishes.) Next, select Perform Full Scan in the Scanner tab and click the Scan button. Once the scan finishes, click the Show Results button to show infected files. To remove those infected files, click the Remove Selected button. You should see a message saying all items were removed successfully. Reboot Windows and repeat the scan to make sure PC MightyMax is gone.

Virtumonde

Description. Virtumonde is a sneaky piece of malware that installs itself without your knowledge using security exploits in various applications. (It has been known, for instance, to sneak onto a system using security holes in older versions of Java.) Once on your system, Virtumonde will display pop-up ads and cause significant performance issues. The real issue with Virtumonde is that it's tough to destroy. It randomly names its related processes, making them hard to find, and it can disable or hide from many common security applications.

How to tell if Virtumonde is on your system. As we noted above, Virtumonde sneaks its way onto a system without the user's knowledge. Oftentimes, the software exploits a security hole, installing itself in the background when you visit an infected Web page. In some cases, however, the software might sneak its way onto a system by secretly tagging along with other software you've installed. Once installed, however, most users will notice frequent pop-up ads and considerable system slowdowns. Whatever you do, don't compound the problem by purchasing any advertised security tools (Virtumonde is far too devious to suggest a security application that might actually remove it). Other symptoms include changes to your Internet home pages and new icons on your Desktop that don't correspond to any recently installed software applications. These symptoms

Just getting Malwarebytes to the point where you can start it on a Virtumonde-infected system isn't easy. Nonetheless, make sure you update Malwarebytes' definitions once you do get Malwarebytes up and running.

are common to other adware, but the process outlined below might be helpful in removing similar applications.

How to remove Virtumonde using Malwarebytes. We're going to need more than Malwarebytes to remove this adware. Virtumonde will prevent you from installing Malwarebytes on an infected PC, so the first step to remove Virtumonde is to kill any associated processes that might be running on your infected PC. However, because Virtumonde renames its associated processes randomly, we can't really tell you what to look for and kill.

The solution is a small program called Rkill that automatically searches for and kills suspicious processes. Download Rkill from tinyurl.com/yj9udk8 and run it once the download is complete. It might take a few minutes for Rkill to search your system. You may get a warning message claiming that Rkill is malware. These warnings are generated by the malware processes that Rkill is trying to eliminate and can be ignored. If you're receiving a lot of warning messages, try leaving a warning message open and running Rkill again.

Once Rkill finishes, you can download Malwarebytes from www.malwarebytes.org. Close all open applications and windows and begin the installation once the download is complete. At the end of the installation, you're prompted to update Malwarebytes' definitions and run the application. Remove the checks next to these options, as we have some additional work to do before we can use Malwarebytes on a Virtumonde-infected PC. Even after using Rkill to
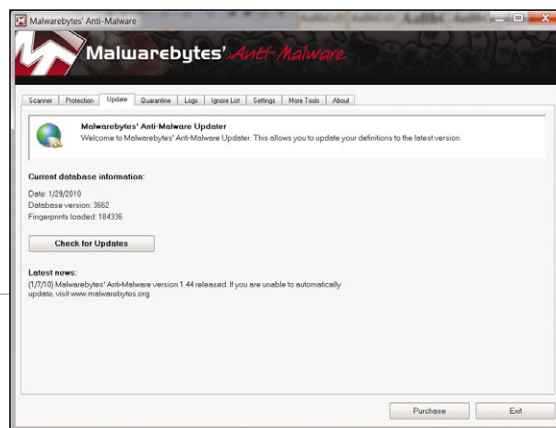
kill Virtumonde processes, you won't be able to execute the Malwarebytes.exe file normally used to start Malwarebytes. If you receive an error message using the term "code 2," you can ignore it. Do not restart the system (if you do, you'll have to run Rkill again).

To get around Virtumonde's block on Malwarebytes.exe, you need to download a randomly named EXE file that does the same thing as Malwarebytes.exe. Download this EXE file from tinyurl.com/yebqlzq and save it to the C:\PROGRAM FILES\ Malwarebytes' Anti-Malware directory. Note the random name of the file, and once the download is complete, navigate to the C:\PROGRAM FILES\ Malwarebytes' Anti-Malware directory and double-click the randomly named EXE file to start Malwarebytes.

Before you begin the scan, update Malwarebytes' definitions by clicking the Update tab and clicking Check For Updates. Next, click the Scanner tab, make sure Perform Full Scan is selected, and click the Scan button. Once the scan finishes, click the Show Results button and click Remove Selected to remove infected files. Restart the system and reinstall Malwarebytes (so you have a working copy without having to resort to the randomly named EXE file). If Malwarebytes starts without any problems, Virtumonde is gone. ▮▮

BY CHAD DENTON

FAST FIXES

COMPILED BY CHAD DENTON

Adobe Reader 9.3.0

Update: Adobe categorizes the 9.3.0 update as a critical update. The update resolves several bugs that can affect program stability and closes exploits that could be used by an attacker to take remote control of your system. One of the more critical issues involves a hole in Multimedia.api that could be used to execute code on a system without the user's knowledge. **Install:** In most cases, you should be notified that an update is available by the Adobe Updater (which runs in the background and alerts you when an update is available). You can check your current version of Adobe by opening Adobe Reader, clicking Help, and selecting About Adobe Reader 9. If you're running 9.2 or earlier, click Check For Updates in the Help menu. Click Show Details to view more information about the update and click the Download And Install Updates button in the lower-right corner to begin installation.

www.adobe.com

Boxee Beta 0.9.20.10708

Update: This popular multimedia application, which acts as a hub for online media and media stored on your computer, got a facelift late last year and plenty of coverage at this year's CES (Consumer Electronics Show) where the company announced a standalone Boxee Box. However, you don't need special hardware to run this application. Versions of Boxee are available for Windows, Mac, Linux, and Apple TV. The newest version addresses more than 500 bug fixes, most of which are related to stability issues. **Install:** You can download the latest version from Boxee at www.boxee.tv. Move the pointer over Download and click your operating system to download the correct version. Boxee requires an account to use it; if you don't already have one, you'll have the option

of creating one. Save the file and run the installer once the download finishes. Follow the installation instructions. You may need to log in to your Boxee account the first time you run it.

www.boxee.tv

iTunes 9.0.3

Update: The latest version of iTunes includes a fix for a rather annoying problem. Since iTunes 9.0.1, iTunes has been ignoring or preventing users from selecting the Remember Password For Purchases option. As a result, every iTunes purchase was accompanied by a request for the user's pass-

word. This issue is fixed in the latest release. The new release should also fix some iPod syncing issues with Smart Playlists and Podcasts and provide bug fixes and stability improvements. **Install:** If you already have iTunes installed, you can update to the latest release by running the Apple Software Update tool. Make sure there's a check next to iTunes + QuickTime and click the Install button. Click the Accept button to accept the software license. The update tool will download and install the latest version. You can also download the latest version from www.apple.com/itunes.

www.apple.com

FIX OF THE MONTH

Google Chrome 4

Update: The most recent update to Google's popular browser brings two new features that some Chrome users have been patiently waiting for. The latest version of Google's Web browser now includes support for browser extensions (similar to Firefox Add-Ons). Developers have been working on Chrome extensions throughout the beta testing process, so even though Chrome extensions are new to Chrome, you'll find plenty of extensions available at chrome .google.com/extensions. You'll find Chrome versions of some of the more popular Firefox Add-Ons, including Adblock Plus and the popular password manager LastPass. You'll also find some handy Chrome-only extensions, including One Number, which provides Gmail, Google Voice, Google Wave, and Google Reader notifications. Firefox fans will also notice that you don't have to reboot Chrome before using extensions. In total, Chrome users will find 1,500 extensions available for Chrome.

The second eagerly awaited feature is the ability to synchronize your Chrome bookmarks. If you use Chrome on multiple PCs, this option will make sure a bookmark added on one computer is available on all PCs with Chrome installed. Additional improvements include a speed increase and support for new HTML 5 technologies. Chrome 4.0 is currently available for Windows only. **Install:** If you don't have Chrome installed already, you can download it at www.google.com/chrome. If you already have Google Chrome installed, the update has most likely already been installed. (Chrome quietly updates itself when new versions are available.) To check if you have the latest version, click the wrench icon in the upper-right corner and select About Google Chrome. If you have the latest version installed, you should see a green check in the bottom-left corner of the About Google Chrome window. If, for some reason, Google Chrome isn't up-to-date, click the Update button to begin the upgrade process.

www.google.com

Frequently Asked Questions

Answers to users' most common questions about HDTVs

The lighting in your home can have a noticeable effect on the picture quality of an HDTV. Just as calibrating a computer monitor improves the display, calibrating your HDTV will give you a top-notch image.

FAQ What are the differences between analog and digital television?

Television falls into one of two broad categories: analog and digital. The difference lies in how the signal is sent and how the receiving device (the television) represents that signal. In basic terms, an analog TV signal is a wave, and a digital signal is a stream of many bits of information. But analog in the United States is on its way out. In 2009, all full-power television stations nationwide began broadcasting only in digital. Therefore, television soon may be viewed as falling into two categories: standard definition and high definition. High definition is a subcategory of digital. Digital broadcasts typically are transmitted in one of three standards, only two of which—720p and 1080i—are HDTV standards. (Another resolution, 1080p, is supported by certain video players, such as Blu-ray Disc players.)

FAQ What's so great about HDTV?

Those standards we mention above have to do with the number of lines of resolution and how they are scanned. Standard-definition TV scans at 480 lines progressively, or 480p, which gives a clear picture on a small television. High-definition TV scans at a higher level, so the picture is much crisper, especially on a large television set.

FAQ If I want to watch TV on a larger screen, do I have to invest in an HDTV?

Not necessarily. Another important factor that will affect what you see on the screen is the broadcast signal itself. Before running out to purchase that 60-inch HDTV, find out what broadcasts are available in your area and consider what feeds you want to watch. Some networks broadcast in 720p, which looks great on a medium-sized television. More commonly, though, broadcasters that include networks such as NBC and satellite programmers such as HBO broadcast in 1080i, and a larger television can take advantage of this format. The list of high-definition channels changes frequently, so your best bet is to call your cable company, satellite provider, or other television service provider. If your provider doesn't offer a particular high-definition feed, but you know it is available in your area (such as a local news station's programming), you may also want to get an antenna. Also, keep in mind that you can still watch non-HD channels on your HDTV, but the picture quality will vary.

FAQ Will my DVD player still work with an HDTV?

That depends. Any DVD player can connect to an HDTV. The picture you see may not overwhelm you, but you don't necessarily need to run out and buy a Blu-ray Disc player and a whole new set of media. The quality of the picture will depend upon several features, a key one being whether your player has "upconversion" or "upscaling" capabilities. A typical DVD player outputs in standard digital, at 480 lines (either interlaced or progressive). Newer upconversion DVD players scale the image on-screen, similar to how a camera's digital zoom fills in missing pixels, creating missing data that lets you view the images at a higher resolution.

FAQ The HDTV screen looked great in the store, but the picture doesn't look so hot at home. What can I do?

The lighting in your home can have a noticeable effect on the picture quality of an HDTV. Just as calibrating a computer monitor improves the display, calibrating your HDTV will give you a top-notch image. One option is to do it yourself with a calibration DVD. Another option is to hire a professional. Many stores that sell HDTVs can put you in contact with a professional who will use specific calibration tools for your HDTV. ▐▌

ACTION EDITOR

Write to:
Action Editor
P.O. Box 85380
Lincoln, NE 68501-5380

Or send an email to:
actioneditor@smart computing.com

Or fax us at:
(402) 479-2104

A Late Nero Rebate & A Super Warehouse Lives Up To Its Name

A few months back I purchased Nero 9 at Fry's Electronics in Fountain Valley, Calif., for $65. I purchased the software partly because it came with a $45 mail-in rebate. I completed the rebate forms as instructed and submitted the application the day after I purchased the software. Apparently I did everything correctly, because I received the rebate check in the mail on or around Nov. 16. When I got the check, I failed to notice the "Void if not cashed before 11/03/09," note so I waited a few days and dropped it off at my bank's night deposit box. A couple days after that, my bank sent me a bill for $55; Nero had closed the account, and an additional $10 return item fee was tacked on top of the original rebate amount. I tried to contact Nero, but I have been unable to find an address. Any help would be greatly appreciated.

<div align="right">

P. Robbins
Huntington Beach, Calif.

</div>

Our Nero contact responded promptly and informed us that she would determine what happened and get back to us with an answer. Two weeks later, Nero dropped us a line to let us know that Mr. Robbins' check was issued back in August. Because Mr. Robbins did not receive the check until after it had expired several months later, Nero agreed to cut him another check for the original rebate amount. Mr. Robbins let us know that he received the new rebate check after receiving a call from the rebate center to verify his address. Much to his delight, Nero was also kind enough to cover the return item fee. And regarding Nero 9, Mr. Robbins told us that he is very happy with it.

On Oct. 28, I placed an order for five external USB hard drives with Super Warehouse, an online technology products and services retailer. The hard drives were defective, so I sought an RMA (Return Merchandise Authorization) from Super Warehouse. Because I reported the hardware failures several days apart, Super Warehouse sent me return instructions in two separate emails. I boxed them up separately, and FedEx picked up the first shipment on Dec. 11 and the second shipment on Dec. 23. Super Warehouse paid for shipping on the first RMA but sent me a bill for the shipping charges incurred on the subsequent delivery. I called Super Warehouse and FedEx, but neither was willing to cover the shipping charges. I followed the return instructions, but I'm left holding the bag on these shipping charges. Can you help?

<div align="right">

A. Smith
Grand Rapids, Mich.

</div>

After relaying the details of Mr. Smith's ordeal, Super Warehouse's Customer Service Manager told us that the first RMA was delivered as expected. Super Warehouse doesn't normally pay for pickup service, but they opted to on this occasion as a courtesy to the customer. When FedEx arrived at Mr. Smith's office to pick up the second RMA, however, the receptionist turned them away. As a result, Super Warehouse was charged the shipping fee, even though the package was never delivered. According to our contact, Mr. Smith scheduled another pickup with FedEx without an RMA. Because Super Warehouse had already covered the shipping for two packages, it was unwilling to pay the bill for the third.

At this point, there was nothing more we could do but convey our regrets to Mr. Smith. But a few weeks later, Mr. Smith was pleased to inform us that his balance now reflects the refunded shipping charges. When we called to investigate, our Super Warehouse contact forwarded us to Douglas Paulin, Super Warehouse's new CFO, who told us the reason for the change of heart: "This company is going to live or die by its quality of service." In our humble view, Super Warehouse just earned its namesake. Bravo. ▐▐

TV Time-Out

We've been cable holdouts for years. Around the turn of the century, I had a roommate who was the Webmaster for the local cable company. We got every channel, basic and premium, completely free. But I barely watched any of it. He moved out just before I got married, so my wife and I decided to try rabbit ears and see if we missed the extra channels. By the time they got around to shutting off the free feed, eight months later, we weren't even watching anymore. Between our DVD rentals and high-speed DSL (Digital Subscriber Line), we never felt deprived of on-screen entertainment. As online programming options grew, however, we longed for a way to have the best of both worlds—free or cheap online programming we could enjoy from the couch without having to set up a PC and keyboard in the family room.

For a while, on the few occasions where it was worth the hassle, I took the direct route: connecting a notebook PC to the television with an S-Video cable and a pair of portable speakers. It didn't look pretty on the entertainment center, but it worked, sort of. Notebooks aren't generally known for powerful graphics processing, which doesn't really matter on a 14-inch screen. Use a 42-inch HDTV as your display, however, and you'll bump up against the limits of a notebook's video card pretty quickly. The sound wasn't very good either, but we were happy to muddle through if it meant we could watch ESPN360 or YouTube on special occasions.

Eventually, though, we needed more. A long maternity bed rest hooked us on "Modern Family" and "Bones" via Hulu along with a steady diet of documentaries streamed from Netflix. But we ultimately wanted that stuff on the TV, not on a bedside netbook or a desktop computer. About that time, I was looking for ways to use our Xbox 360 as an entertainment hub in the family room. We mastered the basics of Windows Media Center and Xbox Live, which I wrote about last year. But buying individual episodes of "Battlestar Galactica" and "The Daily Show" started adding up. Shortly thereafter, we discovered a little application called PlayOn, from MediaMall Technologies ($39.99; www.playon.tv).

PlayOn streams Web video from your PC's Internet connection to your Xbox 360, PS3, or Wii (and some other DLNA [Digital Living Network Alliance]-compliant devices). PlayOn has dedicated channels for free content from Hulu, Netflix, YouTube, and CBS. You can also download plug-ins from other sites for more free channels such as PBS and HGTV. You get where this is going, right? Game consoles are usually attached directly to big TVs with high-quality video connections and surround sound. Fast Internet service can stream high-quality, even high-def, video to your PC. Connect the two, and you're in business.

Not that we're in perfect TV bliss—we don't have ESPN360 yet and if your network falters (ours is wireless), you can end up in an endless loop of buffering and timeouts. We still maintain our rabbit ears for network HDTV and local channels, because you can't get real-time streaming from any of PlayOn's sources, and you're at the mercy of what their content providers make available. But that $40 was the best TV-watching money I've spent in a long while, and for less than a single month of basic cable. I know I'm never going back.

PDF Update

Thanks to all who wrote in with suggestions and advice for alternatives to creating PDF (Portable Document Format) files with Adobe Acrobat. I checked out all the products that were recommended and have to say that Bullzip (www.bullzip.com) impressed me the most. It's free (for personal use), creates PDFs quickly and reliably, and doesn't have any overhead or spyware. My only complaint is that I couldn't find a free PDF creator that also includes a PDF reader. I'm switching to Bullzip from PrimoPDF and to Foxit (free; www.foxitsoftware.com) from Adobe Reader, but I wish I could do both in one application.

Several readers also pointed out to me that OpenOffice and WordPerfect both have built-in print-to-PDF tools, and Microsoft offers a free plug-in for Office 2007. If you only need to create PDFs from these applications, there's no need to use a separate utility. ▌▌

BY GREGORY ANDERSON

Gregory Anderson *is a regular contributor to* Smart Computing *and several other technology publications. He keeps a sharp eye (with the help of thick glasses) on computing trends and enjoys working with geeks of all stripes—most of the time. Share your television travails at* **gregory-anderson@smartcomputing.com**.

Hardware & Software Reviews

With so much information out there about computers and technology, it can be difficult to even know where to start. What should you consider when building a media center? What are the best wireless networking products? Before you make your next purchase, make sure you take a look at our Hardware Reviews and Software Reviews sections for another opinion. Reviews are separated into easy-to-find categories including Audio, Computer Parts & Components, Input Devices, and more. You'll find all sorts of great articles on topics ranging from mobile computing and media players to networking and video and photography. You can find articles not only from *Smart Computing*, but also *PC Today* and *Computer Power User*. Search these articles and make your next purchase a smart one.

To find these articles:

1. Go to www.smartcomputing.com and click the Read Software Reviews or Read Hardware Reviews link.

2. Click any of the links to search by product category. You can also search by subcategory or simply click the Show All link to view all articles under that heading.

3. To enter a keyword search, scroll to the bottom of the page and customize your search. You can enter exact terms or broad subjects to find relevant articles within our editorial database.

Subscribers, be sure to add these articles to your Personal Library so you can keep all of your information in one convenient location for future reference. Simply log in and when you view an article you want to keep, click the Add To My Personal Library link at the top of the page. Create as many folders as you like to keep your information organized.

Find Answers

VOTE For Your Favorite TOPIC

Search All Articles ▶
Read Hardware Reviews
Read Software Reviews
Web-Only Articles
Q&A Board
Computing Chat Room
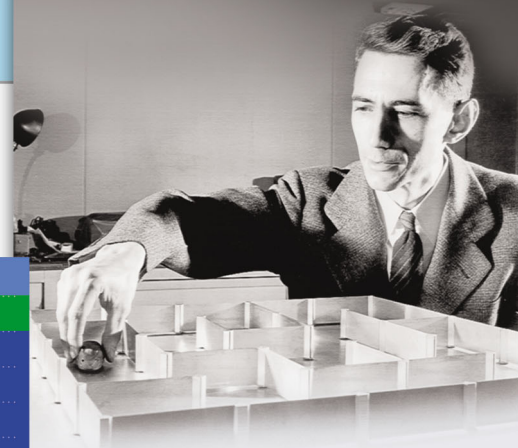Computing Dictionary & Encyclopedia
Daily Tip Archive
Web Log Archive
User Groups
Advertising
About Us ▶
Extras ▶

Product Reviews

Search by product category:

Audio SHOW ALL
Creating/Recording & Listening
Media Players (11)
Miscellaneous (3)
Speakers/Headphones (16)

Computer Parts & Comp
Batteries & Power Supplies (5)
Cables & Connectors (1)
Cases/Cabinets/Towers (26)
Computing Accessories (2)
Controllers (1)
CPUs/Processors/Chip Sets (1)
Memory (11)
Motherboards (31)
Power Distribution Systems/UP
Monitors/Displays/Screens (6)
Miscellaneous (5)

Computers & Computer
Desktops/Towers (26)
Cooling (17)
Miscellaneous (3)
Workstations (3)

Handheld/Mobile Comp
Global Positioning Systems (2)
Miscellaneous (8)
Handheld/Palmtop/PDAs (2)
Notebooks/Subnotebooks (25)
Tablet PCs/UMPCs (2)

Input Devices SHOW ALL
Keyboards (13)
Mice/Trackballs/Trackpads (9)

Networking SHOW ALL
Miscellaneous (2)
Network Hardware
Bridges/Hubs/Routers/Switches (2)
Miscellaneous Components (2)
Wireless Networking (5)

Other Subjects of Interest SHOW ALL
Miscellaneous (1)

OR **Enter Subject** (A Phrase or Key words):
[   ] [Search]
○ ALL Words ('digital' AND 'photography')
○ ANY Words ('digital' OR 'photography')
○ Exact Match ('digital photography'- all words MUST appear together)

Return To Home Page

Storage SHOW ALL
Backups/Backup Devices (3)
Flash Memory (9)
Miscellaneous (3)
SAN/NAS/Storage Networking (7)
SSDs (12)
Standards & Technologies (1)
DVD Drives/DVDs (6)
Hard Drives (17)

Video & Photography SHOW ALL
Home Theater/TV (9)
Miscellaneous (4)
Projectors (1)
DVRs (1)
Web Cameras (3)
Digital Camcorders (2)
Digital Still Cameras/Photography (5)
Graphics, Video & TV Cards (33)

Voice/Telephony SHOW ALL
Cell Phones/Smart Phones (10)
Miscellaneous (8)

Claude Shannon

On April 30, 1916, Claude Shannon was born. According to the *Smart Computing* Encyclopedia, Shannon's "combination of mathematical theories and engineering principles paved the way for the development of the digital computer and laid the foundation for our Information Age, providing the means to convert audio, speech, video, and graphics into digital content."

Search The Archives

Smart Computing subscribers have access to our extensive archive of past issues. Start searching for a computing topic, old or new, by clicking Search All Articles at www.smart computing.com.

A Fresh Start

Springtime is a great time to clean out the clutter from your PC and to start fresh with regular maintenance. Visit the Preventive & Regular Maintenance section of the *Smart Computing* Tech Support Center for articles about everything from cleaning a keyboard to defragmenting your hard drive.

Smart Computing's Fun Site Of The Day

Joy Of Baking

If you need some homemade goodies to warm your home and fill your stomach, take a look at Joy Of Baking (joyofbaking.com). You'll find a plethora of recipes and valuable baking tips. Learn how to bake a good cheesecake or whip up a creamy ganache. There's a nice mix of traditional and unique recipes here with detailed explanations that will serve cooks of any skill level.

OVATION

Gorillamobile For iPhone 3G/3GS

$44.95 I Joby I www.joby.com

I like Joby Gorillapod stands because I can attach them to just about anything. Unlike typical tripods, Gorillapods have flexible legs that wrap around objects to hold your device exactly where you want it.

Now, Joby offers the Gorillamobile, a package that features a Gorillapod and adapters for attaching the Gorillapod to common portable electronics (such as your digital camera). It also has an adapter for your iPhone 3G/3GS. This is the sort of gadget that comes in handy when you're on a plane and want to watch a movie. Rather than hold your iPhone, you can prop the Gorillamobile on the seat tray (or attach it to the back of the seat) and lean back to enjoy your movie.

nio Bluetooth Security Tag

$59.95 I TenBu
www.bluenio.com

The nio Bluetooth Security Tag is an alarm system for an important personal item, such as your notebook bag. The tiny tag, which attaches to your personal item, connects to your mobile phone via Bluetooth. If your phone (which is with you) and your personal item become separated by more than a short distance, the tag sounds a piercing alarm that alerts you, the thief, and everyone nearby. And if you simply forget your notebook bag on a seat and start to walk away, you won't get far without a (loud) reminder.

I like the nio because it's so easy to set up. Once you install the software (check the Web site to make sure your phone is compatible before you buy the tag), connecting to the tag takes about a minute. It's a great tool for travelers.

Giada ION-100

$470 I Polywell I www.polywell.com

Notebooks aren't the only computers that are getting smaller. PC manufacturers such as Polywell are taking advantage of the same components in netbooks and notebooks to create tiny desktops. The new Giada ION-100 is a great example of the new mini desktop PCs. It's about the size of a book.

Based on a 1.6GHz Intel Atom dual-core processor, the Giada ION-100 is powerful enough to handle Internet surfing, office software, and even video playback. It can't go toe-to-toe with standard-sized computers that have full-sized, fast processors and speedy hard drives, but it provides solid performance for day-to-day tasks. Speaking of hard drives, the Giada ION-100 has a 250GB drive that provides plenty of storage space for your documents, photos, and videos.

For such a small device, the Giada ION-100 has more ports than I would expect. It has a VGA port for your monitor, an HDMI port (for your monitor or TV), five USB 2.0 ports, an Ethernet port (for your network cable), and headphone and microphone jacks. It also features a built-in memory card reader that handles SD (Secure Digital) and other cards. And thanks to its 802.11g Wi-Fi connectivity, you can connect to your home or small office wireless network.

I tested a unit that runs Windows 7 Home Premium (32-bit) like a champ. If you're a Windows XP diehard, you'll be glad to know that you can get this system for $21 less with WinXP onboard.

Miss an issue?
Looking for a specific article?
Need to change your subscription info?

Not only can you read past issues, quickly search more than 30,000 computing articles, and update your personal contact information, you also have access to these other great online features:

1 Get answers from fellow readers on the interactive Q&A Board.

2 Contact our SmartPeople computer support in our Tech Support Center.

3 Sign up for the Daily Email to receive computing tips in your inbox.

4 Easily compile your favorite articles in My Personal Library.

Visit SmartComputing.com Today!